THE AMERICAN JOURNAL *of* PSYCHIATRY

VOLUME 115
NUMBER 2
AUG. 1958

Official Journal of
THE AMERICAN PSYCHIATRIC ASSOCIATION

Clinical excerpts

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No. 5 of a series

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1. Graffagnino, P. N., Friel, P. B. and Zeller, W. W.: Emotional disorders treated with meprobamate and promazine. Connecticut M. J. 21:1047, Dec. 1957.

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(hospitalized patients—all types)

by disease

DIAGNOSIS	NO. OF PATIENTS	NO. IMPROVED
SCHIZOPHRENIA		
PARANOID	7	2
NON-PARANOID	45	34
DEPRESSION		
PSYCHOTIC†	37	25
NEUROTIC	16	10
ANXIETY STATE	9	8
CHARACTER DISORDERS	15	13
OTHERS	16	13
TOTALS	145	105

by symptom

SYMPTOM	NO. IMPROVED
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ANXIETY	30
TENSION	31
AGITATION	8
OTHERS	11
TOTAL	116

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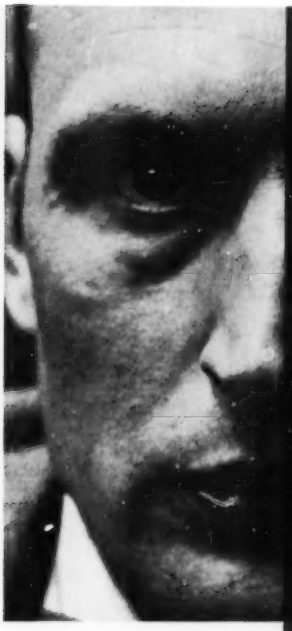

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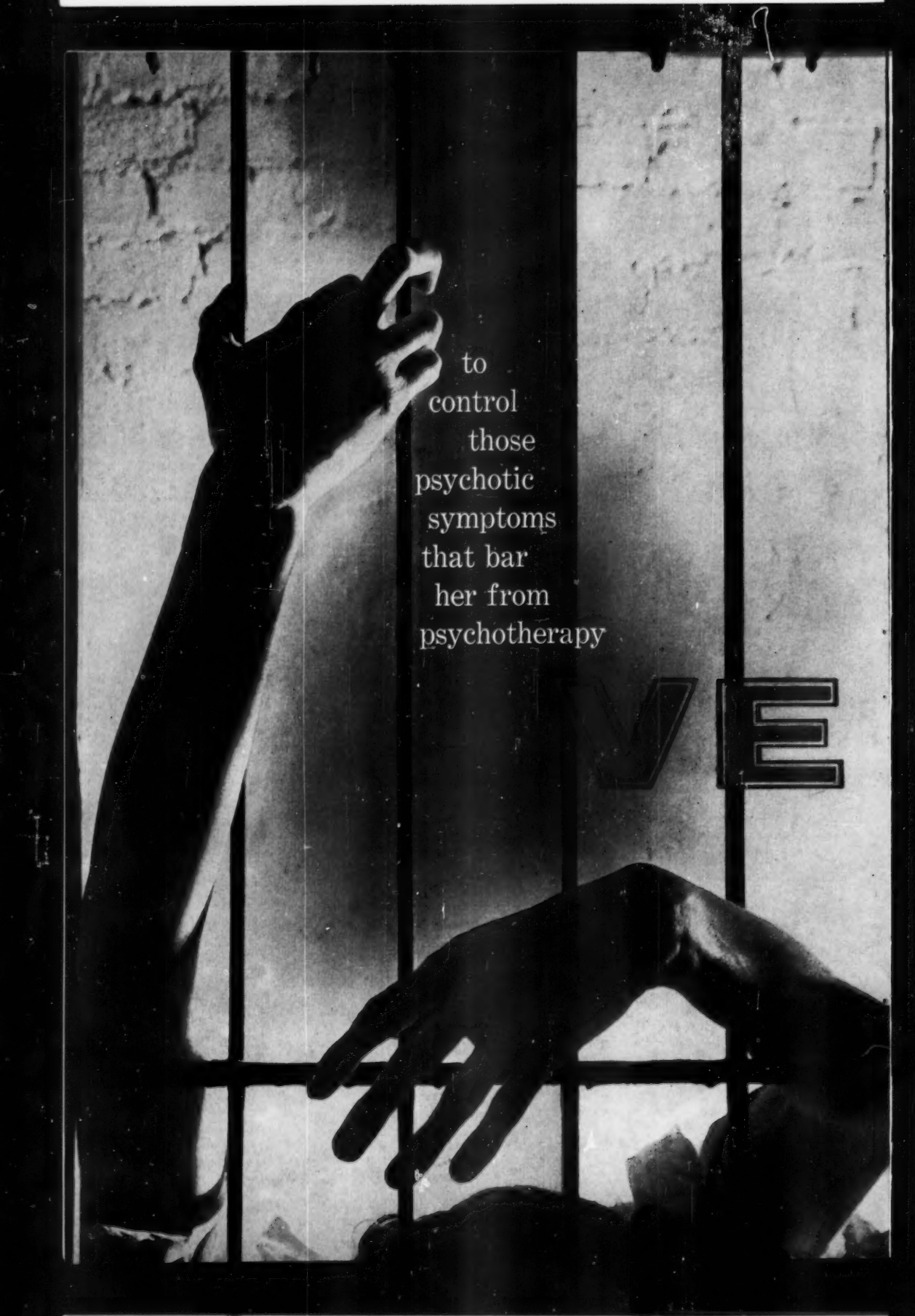
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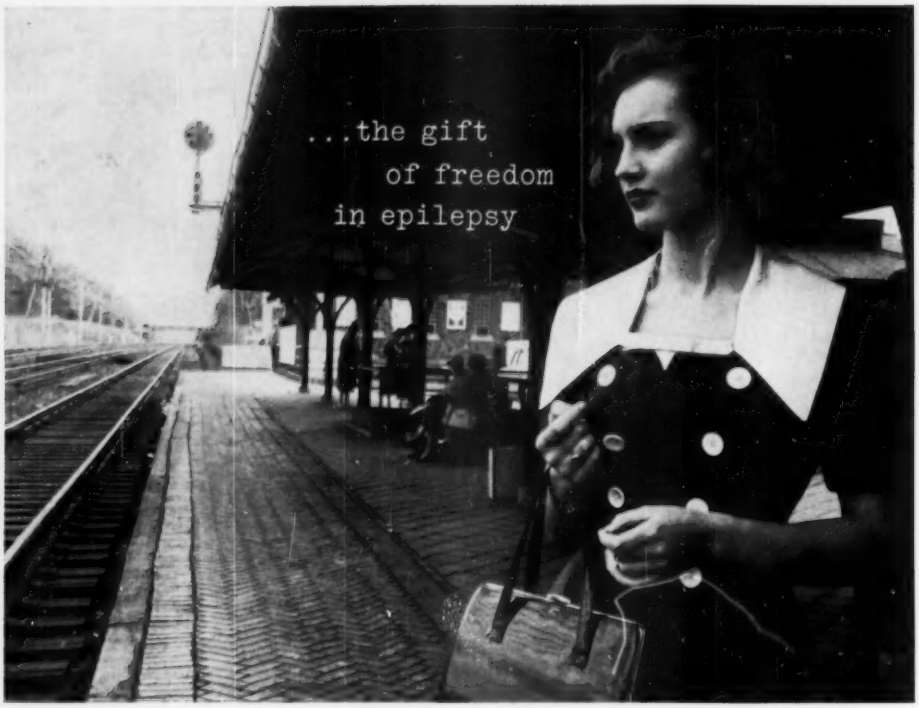

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1. Vasconcellos, J., and Kurland, A.A.: Dis. Nerv. System 19:173 (April) 1958.

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1. Bowes, H. A.: Am. J. Psychiat. *113*:530 (Dec.) 1956.
2. Bruckman, N., *et al.*: Am. J. Psychiat. *114*:262 (Oct.) 1957.
3. MacGregor, J. M.: South African M. J. *30*:1108 (Nov. 17) 1956. 4. Sarwer-Foner, G. J., and Koranyi, E. K.: Canad. M. A. J. 77:450 (Sept. 1) 1957.

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1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

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ICTAL AFFECT [1]

DAVID DALY, M. D.[2]

Many patients who are subject to seizures with an aura express fear or dismay at that time, since they know that their aura signals the onset of an attack, with all its distressing consequences. However, in the latter half of the 19th century, when the semeiology of seizures was being elaborated, principally by the English neurologists, emotion was first recognized as a manifestation of the epileptic process itself, rather than as a reaction to it. In 1861 Reynolds(1) commented on one patient whose seizures were initiated by a feeling of "inexpressible fear"; another patient reported "depression of spirits" as the aura. Herpin(2) described the attacks of one of his patients as follows: "Pendant ce spasme, de tristes souvenirs assiégeaient la patient; il lui semblait qu'elle allait mourir." Another patient said of his attacks: "Je suis prise, sans cause, d'une tristesse subite, et à l'instant même mes yeux restent fixés sur un objet et ma pensée sur une idée qui me rapelle l'image très-nette d'un ancient rêve; l'idée fixe m'absorbe tellement que quoique je regarde toujours vers le même point, je ne vois plus l'objet."

The concept of ictal affect was explicitly stated by Jackson(3) in 1879. In speaking of seizures beginning with an epigastric sensation, he remarked:

> This is often accompanied or quickly followed by an emotion of fear; the patient may *look* frightened ('startled,' 'guilty,' etc.). Patients have used the following expressions: 'I feel frightened,' 'dread,' 'horror,' 'perfect anguish and despair. . . .' It may, of course, be suggested that the fear is a normal fear, that the patient is naturally frightened because experience tells him that a fit is coming on. Patients usually repudiate this interpretation.

Jackson(4) reiterated his view when, in speaking of a patient with dreamy states, he said:

> There was also an abnormal emotional state in some at least of A.B.'s severer attacks—fear, *and a sense of impending death*. . . . I say abnormal because, of course, I do not mean the natural fear of the fit itself, but a fear which 'comes by itself'—*the symptom fear*.

The relationship of emotion and dreamy states was re-emphasized by Crichton-Browne(5), who observed:

> In many cases of epilepsy that have been associated with dreamy mental states, the infusion in these states of a feeling of fear and obscure visceral sensations may, I believe, be made out. . . .

One of his patients spoke of a "frightened belly ache" at the onset of the attack, and another had a "dread of being killed."

Gowers(6) agreed that emotions could be intrinsic parts of seizures. He reported emotions in 10 patients and wrote: "The emotional aurae in all took the form of fear—vague alarm or intense terror." Gowers also cautioned on the necessity of distinguishing true emotional aurae from those instances of alarm as a natural reaction to the onset of a seizure.

One may ask, of course: Is ictal affect a rare event, no more than a curiosity? Numerous references occur in the literature on epilepsy. The precise incidence of such attacks is difficult to determine. Lennox and Cobb(7), in a study of the aurae of a large series of patients, reported affective states in 6.7%. Gibbs and associates(8), in enumerating the symptoms of 300 patients who had psychomotor seizures, listed 4 who experienced fear. Williams(9) has made the most comprehensive review. He reported that of about 2,000 epileptic persons 165 had "complex feelings in the epileptic attack." In turn, 100 of these patients experienced emotion as a part of the seizure. This figure of approximately 5% is in accord with that of Lennox and Cobb. Thus, such attacks are more frequent than has generally been recognized.

---

[1] Read at the 113th annual meeting of The American Psychiatric Association, Chicago, Ill., May 13-17, 1957.

[2] Section of Neurology, Mayo Clinic and Mayo Foundation, Rochester, Minn.

MATERIAL

The present study is based on 52 patients, 22 male and 30 female. They ranged in age from 10 to 62 years; 31 were between the ages of 20 and 49 years. Approximately half of the patients experienced the onset of seizures before the age of 20; in the others the ages at the onset of symptoms were distributed about equally by decades. All patients were examined neurologically. Routine roentgenograms of the skull and electroencephalograms were made in all cases. Angiography and pneumoencephalography were performed when indicated.

RESULTS

Six patients were found to have brain tumors (in 5 instances in the temporal lobe). The histologic classifications were astrocytoma (2 cases), oligodendroglioma (1 case), neuroastrocytoma (1 case) and metastatic carcinoma of undetermined primary site (1 case). The one remaining patient had an oligodendroglioma involving the mesial surface of the posterior frontal region; the significance of this will be discussed later. One patient had roentgenologic evidence of calcification deep in the temporal region; however, surgical exploration was not performed. In 3 patients aneurysms of the internal carotid arteries located in the region of the sella turcica were demonstrated by angiography. One patient had a large arteriovenous malformation arising in the temporal lobe near the sylvian fissure. In one case the presence of a vascular anomaly was suspected, since the patient had a bruit audible over the left eye; this bruit could be obliterated by compression of the carotid artery on the same side. The patient declined angiography. In 4 patients atrophic lesions were present. In two these consisted of focal atrophy seen by pneumoencephalography and associated with focal spike discharges in the EEG. Both lesions involved the temporal areas. One patient had had an abscess of the left temporal lobe treated surgically 10 years before. Another had post-traumatic porencephalia involving the frontoparietal region. Because of frequent focal motor seizures, the patient underwent resection of the cortex overlying the cyst. These seizures stopped, but were later replaced by another type associated with affect; there was then electroencephalographic evidence of a spike focus in the temporal region.

In 24 other patients electroencephalography gave evidence of the site of origin. In 13 there were discrete foci of spike discharges in the temporal region. In two patients there were independently discharging foci of epileptiform activity in both temporal regions. Four patients had focal random slow waves, and 5, rhythmic discharges at frequencies of 4 to 7 cycles per second, arising in one or the other temporal region.

In one patient there were typical temporal-lobe seizures associated with a formed visual hallucination. Examination of the visual fields gave evidence of a homonymous congruous upper quadrantanopsia characteristic of a defect in the optic radiations in the temporal lobe. Results of pneumoencephalography were normal.

When all available data were correlated, it was possible to localize the site of origin of the seizures in 40 of the 52 patients. In 5 others, although all studies failed to reveal the site of origin of the attacks, the clinical pattern of the attack was typical of a temporal-lobe seizure. Thus, in only 7 patients was there uncertainty as to origin of the attacks.

CHARACTER OF THE AFFECTIVE EXPERIENCES

Emotions are complex phenomena, with many shades and nuances. The physician is completely dependent on the patient's ability to describe and communicate these complex sensations, yet their verbal description may be difficult, even after careful introspection. The patient's problem often is compounded by the fact that simultaneously there may be strange perceptual illusions which in themselves almost defy description and make it exceedingly difficult for him to characterize his experience. Surprisingly, most authors are in agreement as to the qualities of affect occurring during attacks. Not all the emotions are unpleasant, a fact which was remarked upon by Jackson and Stewart(4):

> We must not, in this part of our investigation of epileptic paroxysms, limit inquiry to the symptom fear; we have to take heed of all departures from the patient's 'ordinary state of feeling' and it must be well borne in mind that the departure in uncinate paroxysms is in some cases towards a more

pleasurable, although more often towards a more disagreeable, state.

Lennox and Cobb(7) noted unpleasant aurae in 5.5% of their patients and pleasant sensations in 1.2%. The most frequent emotional symptom was fear or apprehension, which occurred in 23 patients; depression was reported in 5 instances and a "sensation of death" in 4. Nine had pleasurable sensations variously described as "happy," "pleasant," "exaltation," "euphoria," or "pleasant dreams."

In summarizing his concepts of temporal-lobe epilepsy, Gastaut(10) concluded: "Affective manifestations are represented by emotive experiences accompanied by emotional expression suggesting the various states of fear and sadness, anger and joy."

An exception to this concord is the statement of Penfield(11) that the only emotions which any of his patients described related to fear or terror. In his extensive experience with both spontaneous seizures and the effects of electrical stimulation of the cortex, he had not observed emotions such as anger, joy, pleasure or sexual excitement.

Williams(9) has expressed the opinion that all ictal affect is limited to a few states which he classifies as fear, depression, "unpleasure" and pleasure. My experience with these patients had lead me independently to essentially the same conclusion. Other qualities of emotion may occur, but they are so rare as to merit special consideration.

FEAR

Fear is the emotion most commonly described. The fear may range from intense terror verging on panic to feelings of anxiety or apprehension, to even less clearly defined, discomforting states which seem akin to fear in their quality, but for which the term "unpleasant sensation" is perhaps best.

Examples of intense fright have been reported by Macrae(12). His patients used such descriptive phrases as "a horrible feeling of terror," "a terrible fear . . . it is out of this world," or "a feeling as though something terrible were going to happen."

Similar degrees of intense terror were described by 2 patients of Liddell(13). One patient commented: "I'd rather have a hundred fits than this sensation." The other patient had contemplated suicide because of the intensity of fear during the aura.

It has been generally agreed that the temporal region is the site of origin of these discharges. Bonnet and Courjon(14) spoke of "les sentiments d'angoisse paroxysmique avec projections viscérales multiples" and of "les sentiments de malaises divers souvent difficile à définir (étrangeté, tristesse, dépersonnalisation, déjà vu ou déjà entendu)." These authors gave no details of the nature of these attacks, but regarded them as originating in the temporal lobe. Paillas and coworkers(15) included among the varieties of temporal-lobe seizures attacks consisting "de sentiment d'angoisse ou d'étrangeté." Macrae (16), in his observations on 44 patients, noted that the most commonly associated aurae were psychic and epigastric sensations, suggesting an origin deep in the temporal lobe.

Confirmatory evidence comes from the work of Magnus and co-workers(17), who studied 34 patients with masticatory seizures. Fear or frightening thoughts were described as part of the seizures by 8 patients. In 5 patients, these were the initial phenomena of the attack. Three others complained of substernal sensations that were "fearlike." Craniotomy was done on 5 patients who had affective aurae; the epileptogenic focus was considered to be at the base and tip of the temporal lobe in 3 of these, in the island of Reil in one and in the uncus in one.

In my series, 25 patients reported fear and 14 reported feelings of anxiety or other unpleasant sensations which they felt to be akin to fear. In some patients, the fear was an abrupt eruption of amorphous primordial emotion, variously described as "terror" or "panic."

CASE 1.—An intelligent, 42-year-old newspaper editor described his attacks as follows: "There was a feeling of impending disaster. It's a horrible sensation; I can't describe it; a feeling that I am going stark, raving mad." This was succeeded by staring, and incoherent speech. Angiography disclosed an aneurysm at the junction of the right internal carotid and middle cerebral arteries. Craniotomy revealed evidence of old and recent bleeding on the medial surface of the temporal lobe and posterior portion of the frontal lobe.

Another patient was so engulfed by fright that she was literally immobilized. She said,

"I can't even speak; the terror won't let me." Another patient said of her fear, "I'm afraid. I don't know of what, but it's horrible." Other patients speak of a sense of impending doom or even death. At times panic evoked a primitive impulse to flee.

CASE 2.—An 18-year-old girl had suffered from seizures for the preceding 5 years. The attacks began with a sudden welling-up of intense fear and a feeling of loneliness. She then would run to the nearest person and clutch him or her tightly. After a few seconds, she would stare, become unresponsive and exhibit masticatory movements, after which she appeared confused, and behaved in an automatic manner. She had had generalized convulsions on two occasions. An electroencephalogram revealed a focus of random, irregular slow waves with a frequency of 2 to 3 cycles per second; this focus was located in the right temporal region. Pneumoencephalography and angiography were recommended, but she declined them.

In other instances the emotion is less intense and the patient may use the words "anxiety" or "apprehension" to characterize his feeling.

CASE 3.—A 40-year-old lawyer had experienced two generalized convulsions in the year prior to being examined at the clinic. For the preceding 2 months he had experienced brief episodes described as follows: abruptly and without warning he would have a "feeling of anxiety"; he could describe this only as a vague sensation that something unpleasant might be going to happen. He then would note an unfamiliar "neutral" taste, which was neither pleasant nor unpleasant. He would perspire and feel an unpleasant burning or tingling in the nose. This sensation descended through the nose and throat into the thorax, which signaled the end of the attack. These episodes lasted less than a minute, occurred paroxysmally and were inappropriate to the immediate situation. Roentgenograms of the skull disclosed a curvilinear calcification lying in the parasellar region to the right of the midline. Angiography revealed a large aneurysm, with extension posterior to the calcific ring (fig. 1, faces p. 104).

A young woman reported that she felt "tense and anxious" at the onset of her attacks. Her mother observed that for 2 to 3 minutes the girl would be "irritable and fidgety"; without reason she might abruptly turn off the radio. This irritability was associated with an unpleasant but indescribable sensation in the epigastrium. Her mother would note profound pallor, followed by staring, swallowing motions and incoherent speech. Other patients may use terms to indicate that the experience is unpleasant, although they do not specifically speak of anxiety. In some instances, on direct questioning, the emotion appears akin to fear or anxiety. One patient spoke of a "strange oppressive feeling." Another woman described her sensation as a "strange, awful feeling in the stomach." Still another patient said there were "chills running up my spine." One woman had attacks of nausea and flushing with a memory "like a dream" of a woman with whom the patient had worked. An emotion accompanied this which the patient described as "distasteful."

Williams(9) has suggested that fear is restricted to lesions involving the anterior half of the temporal lobe, whereas pleasure and "unpleasure" occur primarily when posterior temporal lesions are present. In many of my patients it seems difficult to distinguish between unpleasant sensations and anxiety, so that such a precise anatomic localization may not be justified.

DEPRESSION

Depression is a relatively rare manifestation of ictal affect. Interictal affective disturbances are not uncommon, particularly in patients with seizures arising in the temporal lobe. Prolonged prodromes of emotional disturbances also may occur in such patients. However, in some patients a transient episode of depression may be associated with the onset of the attack. In contrast to the other emotions, Williams(9) points out that depression may persist for a considerable period after the attack is over.

Weil(18) reported in detail on anxiety and depression as ictal phenomena. Seven of his patients had ictal depression lasting from several minutes to 14 days. In spite of the unusually long duration of the symptoms, Weil considered that the symptoms were manifestations of epileptic discharge. Four other patients exhibited paroxysmal anxiety. All 11 patients were found to have epileptogenic foci in the temporal lobes.

Depression was reported in 5 of my patients, but it is interesting that in only one patient was depression the sole emotion.

CASE 4.—A 59-year-old woman had seizures which began when she was 41 years old. Usually, they were minor, but on 3 occasions they had progressed to generalized convulsions. The attacks consisted of " a homesick feeling" in the epigastrium associated with a sense of sadness. She

smelled an odor "like blood," and would note palpitation and pallor. During this time she felt that she must recall some particular event, but she did not know what it was and could not otherwise describe it. An electroencephalogram revealed a focus of slow spike discharges in the right temporal region.

A veterinarian noted that his attacks began with a metallic taste and a feeling of unreality. Associated with this was a sense of apprehension and depression. A 34-year-old woman had had an abscess of the left temporal lobe treated surgically elsewhere 10 years before. Her minor attacks began with a feeling of fear which she described as "dreadful and awful." This was accompanied by a flushing and nausea, and was quickly succeeded by a feeling of deep depression which would persist for several hours. Electroencephalography revealed a spike focus in the left temporal region.

Jackson(4) has commented on the replacement of pleasurable aurae by depression. This was the situation in one patient (case 5) whose history will be reported in the section on pleasurable aurae. In the last patient there was an interesting simultaneous occurrence of feelings of pleasure and depression. He was a 24-year-old man who had a porencephalic cyst of the frontoparietal region, which has been described previously. His emotions were difficult to characterize, but he had a feeling of sadness which at the same time was somehow pleasant, perhaps akin to Juliet's "sweet sorrow." During this time he wanted to call out to someone to come and be near him, yet he was reluctant to do so, since the episode might terminate in a convulsion which he did not wish anyone to witness. During the attack palpitation, a sense of distress within the thorax and a hollow feeling in the epigastrium were experienced. As was previously mentioned, electroencephalography revealed a focus of spikes in the left temporal region.

The reason for the prolongation of the sense of depression is not clear. It may be pointed out that depression normally is a more sustained alteration of affect than is fear, which often is associated with a specific event and hence is more circumscribed.

PLEASURE

Pleasure is not a rare ictal event, although it has received relatively little attention. Wilson(19) commented:

> Now and then one comes across a case where the subject declares that his attacks have been actually pleasant, or at least have been associated with, or left in his mind, the impression of exhibiting some element of a distinctly pleasurable kind.

He referred to 3 patients who were subject to such affective seizures. The first patient described her attacks as a "dream of delight." The second patient said, "I felt that I had been away somewhere in a pleasant dream, which I was enjoying to the full." It is of interest that this patient later had this pleasurable aura replaced by attacks beginning with a feeling of dread or apprehension, thus confirming Jackson's comments on the sequential alteration of affect. Wilson's third patient, in speaking of the attack, said, "I used rather to welcome it, as a not unpleasant feeling."

In 1952, Mulder and I(20) reported on paroxysmal affective disturbances in 15 patients who had lesions of the temporal lobe. In 4 patients the affect was pleasant. Reports of the condition of 2 patients were included. An alternation of affect during the attack occurred in one of them; the initial emotion was a pleasant feeling. The second patient had seizures beginning with a pleasant epigastric sensation. She was observed in an episode of spontaneous automatism during which she was euphoric and talkative. When asked how she felt, she replied, "Wonderful!"

Subirana(21) described 2 patients who experienced pleasurable aurae. One patient noted "a feeling of an extraordinary beatitude," and the other had attacks beginning with "a feeling of indescribable happiness." The first patient had a deep-seated glioma of the temporal lobe.

Williams(9) noted a pleasant-feeling tone in 9 patients. It was described in such terms as "elation," "pleasure," "satisfaction," gladness" and so on. In his patients it was frequently associated with visual hallucinations or perceptual changes.

Laughter has received relatively little attention as a manifestation of ictal emotion. Recently I(22) have, with Mulder, reported on 2 patients who experienced laughter as a fixed part of their attack. On the basis of the pattern of the attacks in these patients,

we concluded that the laughter was an ictal event and not a postictal release. Evidence of disease of the temporal lobe was present in both these patients, one of whom had a tumor.

Ironside(23), in reviewing disturbances of laughter as manifestations of neurologic disease, reported several instances of ictal laughter.

Twelve patients of the present series reported pleasurable emotions during the aura. The patient in case 5, as was previously mentioned, observed a pleasurable sensation which ultimately was succeeded by a feeling of depression.

CASE 5.—A 36-year-old man had been in good health until 3 years before, when he experienced his first attack. He recalled the circumstances well, describing them as follows. He was driving in his automobile with his children, and stopped at a traffic light. Suddenly the sunlight appeared to be more intense, and he felt that his perceptions were unusually acute. It seemed to him at the moment that he had viewed this same scene before, although in some strange way it was in a different place and in different circumstances. Sounds became distant. He was nauseated, sweated and had an urge to defecate. At the same time he felt that he somehow was dissociated from his body, and was looking down on the scene. During this episode he experienced a pleasurable emotion which he said was like that "you have on a sunny day when your friends are all around you." This seizure was brief, and apparently his behavior attracted no attention. During the next few months, these attacks occurred infrequently. During some of them, his face or other portions of the body tingled. Because of the persistence of these attacks, he consulted his family physician, who referred him to a neurologist. Electroencephalograms were said to show a disturbance of function in the temporal region, but a pneumoencephalogram was interpreted as giving normal results. He then was given anticonvulsant medicaments. The attacks continued, and became associated with an unpleasant emotion. He said, "It's like being in an old empty house on a dark rainy day, or like being in a deserted office building. It's a feeling of being alone."

This man was referred to the clinic for additional studies about 30 months after the onset of his symptoms. Pneumoencephalography was repeated. It revealed a slight shift of the ventricular system to the left, with a deformity of the temporal horn. Craniotomy was done, but a tumor could not be identified. The patient returned 9 months later, at which time signs of increased intracranial pressure had developed. A grade 3 astrocytoma was found in the depths of the right temporal lobe. Decompression was done and the patient was treated with radioactive cobalt. During this therapy, a severe headache developed abruptly and shortly thereafter he lapsed into coma and died. Necropsy (performed by Dr. George P. Sayre) revealed an infiltrating astrocytoma arising on the medial side of the right temporal lobe (fig. 2, faces p. 104).

Other patients described similar pleasurable sensations. One man, who also had a tumor of the temporal lobe, usually had gustatory hallucinations, although olfactory hallucinations occasionally occurred. Either of these was pleasant and followed by what he termed "a nice, quiet, far-away feeling; everything is so quiet and I can see only what is ahead." At such times he felt "easy-going and confident." Another man, in describing the onset of his attacks, said: "Everything is rosy"; he also spoke of feeling serene or peaceful. He was seen to become pale, make masticatory movements and become confused. Afterward, he was aphasic, and exhibited weakness of the right side of the face.

Two patients related their pleasurable sensations to the epigastrium. One young woman spoke of "a warm, butterfly feeling" in the epigastrium, associated with pallor and a sensation of hunger; automatic behavior followed. A farmer's attacks began with nausea and a burning sensation in the epigastrium, succeeded by a pleasant feeling "like whisky taking effect."

Two other patients had hallucinatory phenomena that could be recalled after the seizure. A man's episodes began with a pleasant but unrecognizable aroma, and during this time he had "just a very pleasant feeling." This was succeeded by what he termed "a dream." He could recall little of it afterward, but said it had "no conversation and no scenery." A woman observed nausea, followed by a "freezing sensation" that passed over her entire body. Everything appeared strange and unfamiliar. She saw a featureless woman wearing a pink hat. Her emotion during this time was one of pleasure, and she said: "I rather enjoy the spell."

One patient reported the unusual occurrence of a pleasurable aura to her minor attacks and a feeling of fear at the onset of major attacks. She said of the minor attacks that they began with a "relaxed" feeling. This would usually persist long enough for her to walk into the back of the store which she and her husband operated. After this there was a feeling of remoteness and a sense of unreality. She would be unable to

speak, and finally would become automatic. The generalized convulsions began with a feeling of intense fright, "like I'm going to die." This was associated with the feeling that the blood was draining away from her and that she was short of breath. The cause of the attacks, which had been present for 14 years, could not be determined.

The association of pleasure and visual hallucinations was not frequent in this group of patients; only 3 reported visual hallucinations. However, autonomic events, including nausea, sweating and pallor, occurred almost uniformly. Frequently, these autonomic phenomena were not appropriate to the quality of the emotion; nausea, for example, is not a customary accompaniment of pleasure. These observations emphasize that vegetative activity, although a concomitant of affect, is not its essence.

MISCELLANEOUS EMOTIONS

The sensations just described so regularly constitute ictal affect that other forms of emotion merit almost individual attention. Rage, although it has been the subject of frequent speculation, actually is only rarely reported as a manifestation of ictal discharge. Williams(9) observed fury only once, and in the patient concerned its exact significance seemed uncertain. Mulder and I(20) described a patient who interpreted his emotion during the aura as a feeling of anger. Jackson(24) mentioned a "look of indignation" in one patient. This paucity of references suggests that anger is an infrequent ictal emotion.

Sexual sensations seem equally rare. Erickson(25) has reported an instance of nymphomania associated with a meningioma in the parasagittal region. He interpreted this to be the consequence of irritation of the cortical area involved in somatic genital sensations. However, a review of the history suggests that there was an intense affective component present during the seizures, and that this affect carried the sexual connotation in the absence of specific genital sensations. Ictal somatic sensations in the genitalia are rare, but they can occur without any affective coloring. I have observed one patient who experienced tingling of the testicles as an aura to his attack; this was without affective accompaniment. Another patient described paraesthesias of the labia, likewise without affective quality. However, my colleagues and I(26) noted one patient who experienced genital sensations which she interpreted as being similar to those of orgasm. Gastaut and Collomb(27) have made similar observations, pointing out that only a few patients experience erotic sensations as the aura to their attacks. Thus, if somatic genital sensations are distinguished from erotic affective experiences, the latter seem to be relatively rare, but may occur and represent ictal discharges.

Hunger and thirst are not customarily classed as emotions, and are not included in this discussion. Occasionally, they may occur as parts of an epileptic aura. They seem as rare as instances of anger or sexual sensation.

AFFECTIVE ELABORATIONS

In general, the emotions described as manifestations of epileptic discharge are diffuse and undifferentiated. In many instances they represent a sudden welling-up of raw emotion inappropriate to the immediate situation. However, at times the emotional quality becomes associated or integrated into the patient's immediate environment; it becomes as it were "externalized."

CASE 6.—An 18-year-old girl had been subject to seizures since the age of 2 years. When she was very young, she would hold her hands over her abdomen and double up. Her parents noted that she would be pale, and have a frightened expression. Then she would seem confused; occasionally these attacks terminated in a generalized convulsion. As she became older, at the onset of her attacks, she would often run to her parents, crying out, "I'm going to die." During the few years prior to the time we saw her she described her attacks as follows: she might be looking at any object when it suddenly assumed a frightening quality which was totally inappropriate to the nature of the object. Simultaneously, she had a feeling of being "ashamed and guilty." If she looked away, the intensity of the emotion decreased, but if she returned her gaze to the object the emotion returned to its former intensity and then slowly increased until she lost consciousness. On occasion she believed she had aborted an attack by gazing away into space. Usually, however, this emotion was followed by pallor and a period of staring and unresponsiveness, with purposeless behavior. An EEG showed no abnormality, and the cause of her attacks was not determined.

This patient's attacks are rather reminiscent of the patient of MacLean(28), who

experienced a feeling of fright in his stomach and a conviction that someone was standing behind him. This fear was intensified when the patient looked to see if indeed someone was behind him.

Another patient, whose pneumoencephalogram showed evidence of atrophy in the left temporal region, was subject to attacks which would begin with a feeling of inexplicable fear and a sense of apprehension. During this time he would be aphasic and unable to speak or to understand the conversation of those around him. Yet, although he could not understand their speech, he was convinced that the talk of other persons was derogatory to him. Another man, who was found to have a tumor situated deep in the temporal region, had attacks of nausea and an epigastric sensation "like a bag full of worms." He would become ashen, sweaty and fearful, and rush about the house locking all the doors.

Three patients more explicitly expressed fears of external attack. A young girl said of her seizures that they began with a sense of fear and a feeling that "a man is going to grab me"; a 10-year-old boy described an almost identical experience, saying he felt "as if some men were after me." In another man the form of the projection of his fright depended on his circumstances. If he was in a brightly lit room with people present, he felt fear and a conviction that someone was behind him, although he knew this was not true. On the other hand, if he was outside in the dark, bushes and shadows changed their appearance; they seemed to be menacing figures about to attack him. Any noise, such as the rustling of leaves, was interpreted as the sounds of attackers approaching him.

It may be argued that these elaborations or projections of the emotion into the environment are no more than the conscious or unconscious effort of the individual to relate an intense, but inexplicable emotion to the total content of consciousness, thereby rendering it at least comprehensible. Direct statements of the patients argue against this. Most retain sufficient insight, or undergo a "doubling of consciousness," to be able to recognize that these feeling are unreal. Part of their consciousness can perceive that these circumstances are a fixed and stereotyped part of the attack, although the sensations seem genuine. This was lucidly expressed by Kennedy's(29) patient, who was found to have a tumor of the temporal lobe. She said: "Other unhappy, uncomfortable sensations may constitute the attack, which I can't find adjectives to express . . . these sensations never seem to be real . . . even when I am feeling them. I know they have no cause, but I can't throw them off." During some, she said, "At the same time I felt my neighbors must have known what was wrong with me, that they must be looking at me. . . ."

Perhaps an alternate explanation is that these events are analogous to illusions. With seizures arising in the so-called primary areas there are undifferentiated sensory hallucinations, such as balls of light, buzzing noises, or tingling. On the other hand, perceptual illusions may occur, so that sounds may become louder or fainter, or the shape or size of objects may be distorted. Similarly, the majority of ictal emotions are crude—Jackson would have said "brutal." The affective elaborations then may represent a stage of greater complexity with a closer approach to the normal state of nervous activity in which emotion may add shadings and implications to otherwise neutral environmental stimuli.

ASSOCIATED ICTAL EVENTS

If the concept is accepted that affective aurae are manifestations of local epileptic discharges, a consideration of the associated events during the attacks should give confirmatory evidence for the site of origin. Of all the concomitant events during these attacks, the most frequent were visceral phenomena. Under this term I include(1) intestinal motor and sensory phenomena, such as nausea, borborygmi, vomiting, urges to defecate or actual defecation, and other abdominal sensations, (2) vasomotor disturbances, including pallor, flushing and palpitation or tachycardia, and (3) sudomotor phenomena, which consisted of sweating.

In the first category, 20 patients had phenomena relating to the abdominal viscera. Eight patients complained of nausea, one patient experienced belching and audible borborygmi, while another patient had an urge to belch. One patient experienced defecation

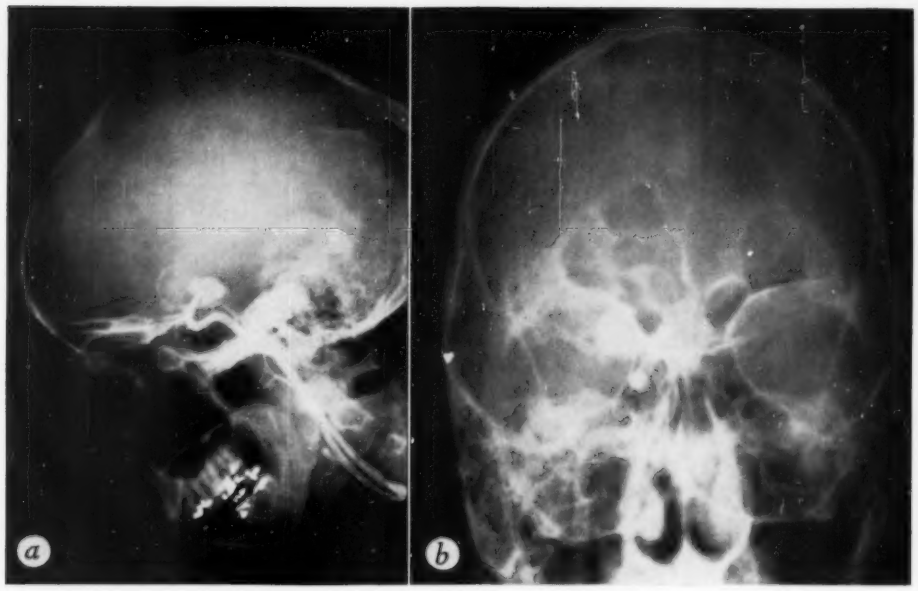

FIG. 1.—Right carotid angiograms made in case 3. *a*. In the lateral view a curvilinear calcific shadow is visible lying anteriad to the portion of the aneurysm filled with opaque medium. *b*. Antero-posterior view, to show aneurysm filled with opaque medium.

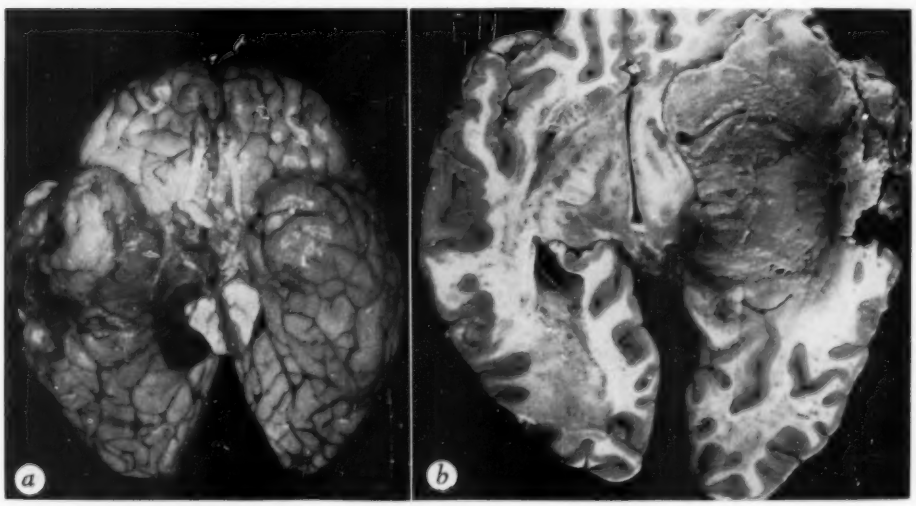

FIG. 2.—*a*. Inferior surface of the brain of the patient in case 5. The tumor lies on the medial aspect of the right temporal lobe. The defect on the lateral convexity of the lobe is the result of surgical intervention. *b*. Horizontal section of the brain, viewed from above. The tumor extends anteriorly to the sylvian fissure and posteriorly to approximately the parieto-occipital fissure.

without loss of consciousness, and in another there was the urge to defecate. The remaining 8 patients described various abdominal sensations, such as "a rolling feeling," "an empty feeling," "butterflies in the stomach," or "throbbing."

Cardiovascular disturbances occurred in 17 instances. Pallor was observed in 13 patients, and flushing in 4. Palpitation or other cardiac sensations were present in 7 patients. Two patients had uncontrollable hyperventilation during their attacks and 2 others reported feeling short of breath.

Six patients experienced profuse sweating during the onset of the attack, and one reported the occurrence of "goose flesh." In all, 55 forms of vegetative activity were described by 35 patients.

With my colleagues, I(26) have discussed elsewhere the significance of these phenomena as epileptic manifestations. We concluded that two general cortical regions are associated with autonomic or visceral phenomena. The first is the frontotemporal region, including the posterior orbital portion of the frontal lobes, the island of Reil and the anteromesial portion of the temporal lobe. The second cortical region comprises the mesial parasagittal region of the frontal lobes. In the patients under consideration, the great incidence of visceral phenomena lends strong support to the electroencephalographic and pathologic evidence for the origin of these seizures within the temporal region.

Uncinate fits occurred in 14 patients. The hallucinations were olfactory in 6 patients and gustatory in 4. Two patients reported interictal disturbances of taste. In one there was a prodrome of a bad taste for several hours before the attack, and in the other patient there was a disturbance of taste postictally. Two patients reported nonolfactory nasal sensations consisting of burning in the nose and throat.

Complex psychic experiences recognized as classic manifestations of discharge from the temporal lobe were observed in 20 patients. *Déjà vu* was reported by 6 patients, while 7 reported feelings of strangeness, unreality or unfamiliarity. Perceptual illusions, such as micropsia, hyperacusis or an echoing quality to the sound were described by 4 patients. Seven patients observed complex alterations of the psychic state. A man felt that, no matter what he thought about, his thoughts were "pulled back" to a certain idea which later he never could recall. Another patient spoke of thoughts "rushing through my head." Experiences suggesting old memories or dreams were noted by 3 patients. Formed visual hallucinations, one of great complexity, were described by 4 patients, while 5 others described visual hallucinations which either were unformed or the content of which was difficult to recall. Two reported auditory hallucinations. One woman thought she heard a voice speaking to her, and would answer it during the attack. She thought it to be her father's voice. Another patient heard pleasant music which later could not be recalled.

Thirty patients had episodes of confused and automatic behavior; in 18 instances these were associated with masticatory attacks.

Summary and Conclusions

On the basis of data in the literature and findings in the present study, it is clear that emotion may be recognized by patients as an intrinsic part of their attacks, and not as a reaction to the occurrence of the attack itself. The emotion is stereotyped in that it is constant in both quality and time of occurrence during the attack. The quality of the emotions varies from patient to patient, and occasionally sequential alterations of emotion occur in the same individual. Fear or sensations of anxiety are reported most frequently. Ill-defined unpleasant sensations, in many instances akin to fear, also are common. Depressive symptoms are relatively rare. On the contrary, a minority of patients reported pleasurable experiences.

Evidence appears overwhelming that in the majority of patients the discharges associated with these seizures arise in the temporal region. In many instances there was convincing evidence of origin in the depths of the temporal lobe. Uncinate hallucinations and vegetative phenomena occurred either singly or in varying combinations in 38, or almost 75%, of the patients. Both these epileptic manifestations are indicative of discharges deep in the temporal region. Masticatory attacks, for which Magnus and co-workers(17) have postulated that the

amygdaloid nucleus is the efferent mechanism, were also relatively common. This impression was further supported by the anatomic location of the verified vascular anomalies, atrophic lesions and the tumors. Thus, evidence favors the fact that the deeper temporal regions, areas either intimately associated with or an actual part of the rhinencephalon, are involved in these seizures.

It will be recalled that in addition to the temporal area, certain supracallosal structures in the medial parasagittal regions also are parts of the so-called limbic system. Examples of affect associated with lesions in this area are rare. Erickson's(25) patient is one instance. As was previously mentioned, one patient in my series had an oligodendroglioma located on the mesial surface of the frontoparietal parasagittal region. This patient experienced attacks which would begin with a sensation of fear and a rising epigastric feeling. Therefore, it seems likely that the so-called limbic system is involved in ictal affect.

These conclusions are in accord with experimental evidence concerning the functions of this region. In 1933, Herrick(30) suggested that the rhinencephalon might have activities other than those related directly to olfaction. He wrote that

> An important function of the olfactory cortex, in addition to participation in its own specific way in cortical associations, is to serve as a non-specific activator for all cortical activities.
>
> This type of non-specific activity is one of the major functions of the olfactory cortex. . . . Having no localization pattern of its own, it may act in two ways: first upon other exteroceptive systems whose localized mechanisms are adapted to execute adjustments where external orientation is demanded, and, second, upon the internal apparatus of general bodily attitude, disposition and affective tone.

In 1937, Papez(31) proposed a concept of the anatomic substrate of emotion based on purely theoretic grounds. He suggested that the hypothalamus, the anterior thalamic nuclei, the gyrus cinguli, the hippocampus and their interconnections constitute a harmonious mechanism that may elaborate the functions of central emotion, as well as participate in emotional expression.

Almost simultaneous experimental confirmation of these general concepts was made by Klüver and Bucy(32), who studied the effect of resection of both temporal lobes in monkeys. These authors noted profound behavioral changes in the monkeys, including pronounced placidity and a "psychic-blindness" that was characterized in part by inability to recognize fearsome stimuli. Great changes in the sexual behavior of the animals also were present.

Spiegel and co-workers(33) reported states of rage in cats with experimentally produced lesions in the region of the olfactory tubercle and the amygdala. Bard and Mountcastle(34), in an elaborate study of cats observed over a prolonged period, reported that extensive ablation of the isocortex was not associated with any striking emotional alteration; however, subsequent destruction of either the region of the amygdala or the cingular zone was associated with the development of "sham-rage" reactions. If the isocortex was left undisturbed, then only lesions in the region of the amygdala were effective in the production of ragelike states.

These observations have been directly opposed by the reports of Schreiner and Kling (35), who described profound placidity combined with hypersexuality in carnivores after destructive lesions were produced in the region of the amygdaloid nucleus. The cause of these discrepancies is not clear and further investigation of this problem is indicated. In any event, regardless of the character of the emotional disturbances, all authors agree that the affective behavior and responses of animals to external stimuli are greatly altered by lesions in this region.

Considerable attention has been devoted recently to elaboration of these animal studies by methods of chemical and electric stimulation. MacLean(36) has observed "fearful alerting" after stimulation of the hippocampal area in animals. Shealy and Peele(37) report that in cats, stimulation of the amygdaloid nucleus produces either frightened behavior, undirected rage or an "alert" state. In man, stimulation of this area has caused fear, anxiety or "weird feelings"(38). On the basis of an extensive review of the literature, Pribram and Kruger(39) have proposed subdividing the rhinencephalic structures into 3 systems, and have formulated hypotheses relating to their functions. Further experimental studies will be necessary for evaluation of these concepts.

The massive visceral accompaniments of affective states have led some(28) to equate rhinencephalic functions with visceral function and to use the term "visceral brain." The implication exists that emotion is basically visceral in origin. Such a conclusion is more readily justified on the basis of animal studies than on the basis of the experiences of human beings with seizures. In man, there is plentiful evidence that during minor seizures extensive autonomic changes may occur entirely without emotional accompaniments. As was previously pointed out, at times there is a discrepancy between the quality of the emotion and the character of the vegetative events. Thus, while emotion and vegetative states may proceed *pari passu*, they are not in one-to-one correspondence. Vegetative activity is not the skeleton of emotional sensation. Pribram(40), on different grounds, has expressed a similar opinion and propounded a broader concept in which autonomic function plays a varying role as one of several variable but interrelated factors producing emotion.

Williams(9) has suggested that there is a certain topographic localization of emotion in the temporal region. This concept has the appeal of symmetry, but on theoretic grounds it is hard for me to accept the concept of "centers" for fear or for pleasure in such a phylogenetically ancient system. An alternate possibility is that the patterns of excitation in this general area, with associated widespread alterations in physiologic levels of activity of both the central nervous system and the internal milieu of the body, may bring about the state interpreted as "emotion."

It is obvious that any attempt to develop a theory of the physiology of emotion, in which the behavior of experimental animals is used for analogies, founders on the absence of subjective reports of the emotional states in the animal. Furthermore, one must be cautious in attempting to extrapolate on the basis of epileptic events. Certainly, in the majority of patients, ictal emotions are meager and crude. They lack the profusion and subtlety of normal emotions. The patient is not deceived: these are experiences happening *to* him. They are as involuntary as the jerking of a hand during a focal motor seizure. In other focal seizures there is a derangement or fragmentation of normal cortical activity, so that the epileptic phenomena constitute a distortion of the normal function of that area. Just as the "clotted mass of movement" in a jacksonian seizure may give no clue as to the complexity of motor patterns latent in the cortex, so also may the emotion in an affective seizure only hint at the richness of function in these areas.

In view of such reservations, what do these observations tell us concerning emotion? The frequent concomitant occurrence of affect, vegetative phenomena and olfactory and gustatory sensations underlines their importance in activities essential to the preservation of the individual and to the maintenance of the species. I tender the suggestion that emotion exerts a selective function in emphasizing and coloring incoming stimuli. In a sense, it filters present experience in the light of the past—encouraging certain actions, denying others. By its relatively long duration, it possesses an executive capacity, providing continuity to the activity of the individual and orienting future acts in terms of the present. It is the archer of time's arrow.

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COMMITMENT PROCEDURES AND THE ADVANCEMENT OF PSYCHIATRIC KNOWLEDGE [1]

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Society's methods of approaching disturbances and deviations of human behavior are an everchanging process, dependent upon historical traditions and their modification through humanitarian movements and the accumulation of new knowledge. Law deals with the entire gamut of human relations, concerning itself in some way with the solution of the totality of human problems. Psychiatry too, studies many aspects of human behavior, its deviations, motivating forces, and along with law, techniques of control and modification. Therefore, it is inevitable that significant interdependences between law and psychiatry exist, and each must take cognizance of the other to handle the intricate and perplexing problems of human behavior. However, differences are readily apparent in their respective interpretations of behavior and their approach to personality deviations. In this paper, these interdependences will be discussed, as well as problems resulting from certain fundamental differences in viewpoint, with emphasis on their relationship to the problem of hospitalization of the mentally ill, and possible modification of the laws regarding commitment as a result of advances in psychiatric research and treatment.

Several English psychiatrists in their recent text on psychiatry(1), in which they made a comparative study of commitment proceedings throughout Europe, recently wrote:

> While the esteem in which psychiatry is held in the United States is as high or higher than in any other country, the law relating to insanity is in no State of the Union in an advanced stage, and offers no models for reform of the law in other lands.

Although perhaps somewhat exaggerated, there is much truth in this statement. One must admit that many European nations are far ahead of us in the hospitalization of the mentally ill as well as the application of psychiatric methods to the rehabilitation of the sexual deviate and criminal(2). The causes of this are related to a number of factors. One is a tradition still influenced by the celebrated Packard case of 1864, in which trial by jury became a precedent for commitment (3). The second important factor is a society in which relatively unrestrained freedom is every individual's right. Also of fundamental significance are the differences in orientation of law and psychiatry to the problems of human behavior(4).

Law with its historical background, sense of tradition, well established precedents and many accepted attitudes of the general public, has concerned itself with the protection of society and the rights of the individual. Its "psychology" has been based on a number of archaic principles, rigid dichotomies of black and white, right and wrong, sane and insane. The use of the concepts of free will and responsibility often becloud certain issues. Its techniques for control of deviant patterns of behavior utilize determent and punishment of the transgressor. In the hospitalization of the mentally ill, highly formalistic procedures are characteristically a part of the legal framework and illustrate little understanding of the bases of human behavior. These many factors and their ramifications have limited the approach of the legal framework to the problems of the mentally ill. On the whole, laws are relatively static, and considerable effort usually must be exerted in order to change existing codes by legislative action.

Psychiatry, on the other hand, is a recent development within the framework of the medical sciences. The tremendous impetus for its recent growth, with a resultant acceptance by the medical profession and the general public, has occurred only during the past 25 years. Once an isolated medical specialty concerned primarily with hospitalized psychotic patients, its domain has now been greatly expanded to include many aspects of human behavior, such as the psychoneuroses, personality disorders, and more recently alco-

[1] Read at the 113th annual meeting of The American Psychiatric Association, Chicago, Ill., May 13-17, 1957.

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holism, drug addiction, sexual deviations and anti-social behavior. The psychiatrist deals with a large variety of disturbances, a number of which may exist on a continuum. He admits that often the dividing line between the normal and the pathological is an ambiguous one. He is concerned about the treatment and rehabilitation of the mentally ill. His approach to human behavior is both deterministic and dynamic in that he is concerned with the causes and a rational modification of these various patterns of behavior.

Unfortunately, the discussion of Professor Jerome Michael(5) of Columbia University Law School made 20 years ago in regard to the thinking of many jurists toward psychiatry, still stands and has some basis in fact.

> They [the jurists] are skeptical of psychiatry because of the immodesty of some psychiatrists which has allowed them to make extravagant claims regarding their power of diagnosing and solving not only of individual, but of social problems . They are skeptical because of what they have been able to learn regarding the unreliability of psychiatric diagnosis and the uncertainty thereof. They are skeptical because of the fantastic character of the testimony which psychiatrists give in the courts. They are skeptical beause of the widespread disagreement among medical psychologists about the fundamental problems both in theory and practice. They do not understand how scientists can differ so radically among themselves about matters of science, and they are forced to conclude either that those who disagree are not scientists, or that about which they disagree is not science, but rather opinions of greater or less validity.

Psychiatrists themselves have become increasingly aware of the limitations of their own knowledge and the need for further research. One must realize that psychiatry as yet is unable to thoroughly understand on a scientific basis many aspects of mental disorder and its treatment. To the many problems facing psychiatry, the solution will come only through further research. This requires the recognition by all psychiatrists, the medical profession, and the general public of the need for psychiatric investigations(6). The public has been inundated with psychiatric propaganda as though current knowledge was sufficient for an adequate understanding and treatment of emotional illnesses. Psychiatric propaganda has ignored in the main the lack and the need for new knowledge, new knowledge to be applied in the clinic and hospital for the treatment and care of the patient, new knowledge upon which to base preventive programs. It should also be realized that this new knowledge in psychiatry will not come from purely clinical studies, although there is a great need for further clinical clarification of psychiatric disorders. Basic research including work in the areas of neurophysiology, neuropathology, neurochemistry, endocrinology, psychology, sociology and anthropology is imperative for the solution of the multiple psychiatric problems with which the medical profession is faced.

This is not to imply that progress has not been made, and, therefore, that the progress that has been made should have no impact on legal procedures. Significant advances in the management and treatment of hospitalized psychotic patients have occurred over the last 25 years. The somatic therapies, drug therapies, group and individual psychotherapeutic programs in mental hospitals have altered the prior feeling of pessimism toward therapy of the mentally ill, to one of hopefulness, even in some instances, enthusiasm. The mental hospital has become a type of "therapeutic community" and no longer merely a repository for custodial care and restraint. These advances in treatment have led to the mentally ill being considered sick people capable of being treated and cured. Hence, facilitation of hospitalization and discharge is very desirable for large groups of patients.

The undesirable features of commitment laws have been described on many occasions (7, 8). Briefly, these features include the stigma of criminality, use of jury, legal serice and notice to the patient, the insistence of personal appearance in a court hearing, the exposure of the patient as a public spectacle and the public record of such, emphasis of lay judgment as in trial by jury with a resultant identification of criminality and insanity by the procedure, the certification of mental illness as tantamount to legal incompetence with a resultant loss of civil rights, police participation, publicity, inquiry into the patient's financial status, and use of an anachronistic terminology. What role does the acquisition of new knowledge play in psychiatry in modifying these archaic attitudes? Through public education and education of legislative, judicial and legal professions one can hope for an alteration in

many of these attitudes. This has already occurred in a number of states. The concept of mental illness has changed within the framework of medicine in the areas of these advances, and with the realization by the public and the legal profession that mental disease is not something *sui generis*, and therefore, in its essential manifestations different from other illnesses. The development of the mental hospital as a therapeutic center rather than a custodial repository, and the fact that mental illness can be treated and greatly ameliorated, has resulted in altered public opinion. A certain amount of modesty on the part of the psychiatrist in approaching human behavior, with his acceptance that there is a great deal that he does not know about it, and therefore his emphasis on the need for research in the field has improved, and should continue to improve, his relationship with the lawyer.

There is no doubt that as the psychiatrist's knowledge of human behavior increases, his domain broadens. In addition to the psychotic and the psychoneurotic, the psychiatrist should concern himself with many disorders having tremendous legal significance such as alcoholism, drug addiction and sexual deviations. Increased attention is being paid to the "criminal mind" and psychiatry in some cases has proven to be a valuable adjunct to the social rehabilitation of the criminal.

Legal procedures relating to alcoholism, drug addiction, and sexual psychopathy have many of the archaic characteristics of the commitment proceedings. Again the concern is with conduct, punitive measures, use of archaic terminology, little or no understanding of causes and motivations for such behavior. In a recent study(9) of the psychiatric evaluation of the laws of homosexuality, the authors conclude that it is time to go beyond the laws of Hammurabi and Leviticus and apply some of our knowledge of this deviation to formulating an adequate law to handle the problem. This certainly applies to many disturbances of human behavior, particularly sexual offenders. However, within the present framework of our psychiatric knowledge, the management of these disorders as well as the criminal depends primarily upon sound legal principles. Psychiatric examination and treatment may be a help in such management but the majority of such individuals must still be handled largely by current legal methods. These areas wait patiently for significant investigation from the psychiatric view point to add to our knowledge techniques of management and therapy before there may be a change in the legal framework.

It is interesting to note that in several recent articles in legal journals, an emphasis is being placed upon research as a tool in understanding these various disturbances and deviations of human behavior. In regard to commitment, we read:

> Ignorance as to its nature [mental illness] has frequently caused man's treatment of it to result in more harm than good. Legislation has reflected this ignorance, especially in commitment statutes which have been overbalanced with unnecessary procedures designed to protect the public safety, the public pocketbook and the individual right to unrestrained freedom(10).

Another author(11) states in regard to the need for a constant process of enlightenment about psychiatry for judges and lawyers:

> The medical profession has the responsibility of carrying on research and advising the public of any advancements that are made. The legal profession should endeavor to see that laws and court procedures are modified to encompass any relevant psychiatric findings and therefore insure in this field more intelligent and realistic administration of justice.

In discussing sentences for sex offenders, Tappan(12) concludes:

> Finally, and particularly, it should be stressed that insofar as we may aim at something more ambitious than custodial confinement of the sexual offender, we can do so only through emergency facilities and personnel for research.
> In clinical theory it is highly desirable to retain the delinquent in custody until—and only until—the causes of his behavior are resolved so that he can return to the community rehabilitated as no longer dangerous. Our ability, however, to apply this theory to good effect must depend upon a combination of skills: to discover the causes of the delinquency, to apply effective treatment methods according to the requirements of the particular offender, to secure the necessary personnel and other resources, for treatment methods according to the requirements of the particular offender, to secure the necessary personnel and other resources, for treatment, and—most of all, in the interest of justice—adequate criteria for release.

It is interesting to note that in regard to

hospitalization of the mentally ill, Mayer-Gross, *et. al.*, write(1):

> The liberalization of law and administrative practice has everywhere been closely connected with the *progress of research and treatment.*

One should not imply that the impetus for change in commitment laws and other legislation regarding disturbed behavior, can come only from the acquisition of new knowledge in the field of psychiatry. The humanitarian viewpoint toward the mentally ill promulgated in the early 19th century by Pinel and the Tukes, and later in this country by Dorothea Dix and Isaac Ray, plays a very significant role(13). Up until recently, changes in the hospitalization and treatment of the mentally ill have been made through an emphasis on the humane needs of the mentally ill, the importance of approaching them as being ill rather than possessed or consciously deranged. Such an approach at understanding has reduced many of the fears of the mentally ill. However, the humanitarian approach, although it has led to many significant reforms, has not been able to modify many of the undesirable procedures related to commitment. The desire and need of the public and legal profession to have a greater factual understanding of the mentally ill can be satisfied through greater knowledge of the illnesses and the fundamental processes involved in their cause and treatment. Hence, research in psychiatry should widen the horizon for the public and for the legal profession, so that the original humanitarian principles in the management of the mentally ill have a more rational basis and can be more readily accepted.

The goals of the ideal commitment law can be briefly stated(3, 14). There should be minimal legal formalism, minimal psychological traumatization in admission policies, devices which aim to get maximum patient participation in therapy which includes intramural detention, simplified emergency provisions, simplified discharge procedures, removal of stigma resulting from archaic legal terminology, and finally, avoidance of commitment proceedings wherever possible by voluntary admission of patients. There must always be a safeguarding of the patient's rights to petition for release by court hearing. But throughout, the emphasis should be on the patient's medical rights rather than his legal rights. The model act governing hospitalization of the mentally ill drafted by the committee of psychiatrists under the auspices of the National Institute of Mental Health, incorporates many of these principles.

This model act can in no way be regarded as a final solution to the problem of commitment. With further knowledge in the area, there will undoubtedly be further alterations in the model law. Psychiatry grows more inclusive, and impinges more and more on the domain of the law. It is anticipated that eventually psychiatry will be in a position to supplant certain legal factors in the management of such problems as alcoholism, drug addiction, sexual offences, and finally criminal behavior. Psychiatry's approach to these problems now is extremely limited but this should not inhibit our thinking and planning in these directions. Judge Biggs(2), has only recently very pertinently summarized these problems:

> Let us revise our views and work from the premise that all laws should be for the welfare of society as a whole and not directed at the punishment of sins. On this premise our aims should be: first, security for the socially adjusted, the so-called 'normal' person; second, rehabilitation and re-education for the antisocial person, including those who are mentally ill; third, in carrying out the first aim, let us give humane custodial care to the person who apparently cannot adjust to the social norm. We should re-evaluate our present laws, consider their original purposes, how they evolved and whether they are necessary and desirable in the light of the present needs and knowledge and whether they have outlived their usefulness.

In conclusion, one can anticipate a growing rapprochement between law and psychiatry, related to a restatement of certain basic humanitarian values, but particularly due to developing psychiatric knowledge. These influences, through public and professional education, should result in more satisfactory methods for hospitalizing the mentally ill. Psychiatry, with its strivings for a scientific understanding of human behavior, must lead the way before there can be alterations in legal codes, but it is anticipated that the lag between law and psychiatry in the understanding and approach to mental illness, can be reduced through a closer correlation of law and developing psychiatric knowledge.

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A STUDY IN NON-RESTRAINT

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Physical restraint temporarily handles a ward situation but the net result is to worsen the condition of the patients. This paper is a report on the methods which were employed to avoid the use of restraint on a disturbed service.

The service has 500 female patients in 12 wards, each ward with a day room, dormitory and 18 single rooms. The patients are of mixed racial and national origins and most have come from metropolitan New York. They had been sent to this service because they were disturbed or grossly regressed and they were the most difficult women patients in this 10,000-bed hospital. An average of 40 patients were put in a camisole or restraining sheet each day.

METHOD EMPLOYED

The ward personnel were told that if they were worried about a patient and were unable to handle the situation themselves, they should phone the doctor, who would drop everything that he was doing and would be on the ward within 5 minutes of the call. He would then make a decision as to how the situation should be handled. Only in extreme emergencies were the ward personnel to apply restraint themselves and if they did so the doctor was to be informed immediately. From the beginning it was pointed out that no extra help would be available.

Emphasis was put on permissiveness. If a patient wished to sit on the floor she was to be allowed to do so. The activities of patients were to be interfered with only if they annoyed other patients. Likewise, if a patient wanted a second helping of food at mealtime she should get it even if she was obese, the reason being that she had a psychological need to eat. Punishment had no part in treatment of mentally ill patients.

These ideas were acceptable to the younger attendants but those with longer service stated that they knew their patients and knew how to handle them. In many cases their attitude was custodial rather than therapeutic.

The question was raised as to what to do if a patient requested to be put into restraint: it was pointed out that in this case the doctor should be called. We emphasized that by listening to the patient the state of tension usually passed off within a few minutes. Only occasionally is special medication necessary.

To equalize the burden of handling, some difficult patients were moved from the two most disturbed wards to other wards. This helped the conduct of patients both on those wards and in the rest of the group. Each ward had a cross to bear but no cross was too heavy.

After this initial reshuffle the mere fact that a patient was disturbed and unmanageable was not considered to be an adequate reason for her transfer to another ward but often to be a failure of ward personnel in handling the situation. This failure was dealt with by immediate discussion, not by disciplinary measures. No patients were transferred outside the service.

THE FIRST FOUR DAYS

Many difficulties were encountered during the first few days. Many attendants resented what they considered to be an infringement of their authority. Some stated that if they were unable to apply restraints they saw no point in remaining on the wards. There was a marked feeling of insecurity among the ward personnel. It was made worse by patients who had become trained to the idea of restraint, and when an assault occurred on the ward they would shout, "Put her in a bag." This pressure and attempted direction by the patients was difficult to resist.

Further trouble occurred when the night shift, who had not been instructed in the ideas behind non-restraint, became resentful and objected to the work that the other per-

[1] Central Islip State Hospital, Central Islip, Long Island, N. Y.

sonnel were doing. It had been thought that the contact with the day and evening shifts would have a beneficial effect on them and that the new ideas would gradually filter through. Instead, the night attendants criticized the day personnel for softness. This was at least partly due to some patients taunting attendants with the fact that restraint was not to be used.

On the fourth morning of the new program one of the doctors found two of the night shift personnel waiting to see him in his office. They stated that unless a certain patient was put in restraint for two days they intended to leave the hospital. Their complaints were listened to occupying ¾ hour of the doctor's time. It was felt that the only way the situation on the night shift could be handled satisfactorily was to have group discussions with them. These conferences took place between midnight and 2 a.m. during their regular working hours. This situation has been repeated many times with attendants who were unable to accept the program.

Some incidents in the handling of patients in the first few days are worth recording:

S.C. is a 30-year-old schizophrenic who is aggressive and combative. The senior author was sitting in the nurse's office on this patient's ward when he received a sharp blow over one ear. He turned around to find this patient behind him. She shouted angrily "Look at my arm." She showed a large bruise and said that she had received it the previous day from a patient who, if she had been in restraint, could not have attacked her. She was therefore passing it on to the doctor. The patient was asked what she wanted done about it all. Did she feel that she should be put in restraint because of this assault on her physician? Certainly the doctor did not intend to restrain her. To this the patient had no reply and marched out of the room.

Four patients refused to keep clothes on when taken out of restraint; one has an honor card to walk on the hospital grounds unaccompanied.

Medications are given by mouth, not by injection, except in emergencies. If a patient refuses her medicine, attempts are made to persuade her to take it but no force is used. If she continues in her refusal then medications are discontinued until she changes her mind.

At the commencement of the program shock therapy was discontinued but later it was reinstated, each course of treatment being tailored to the patient's individual needs.

The use of paraldehyde has been stopped because of its objectionable taste and smell. Luminal solution (1 grain to the dram) is available but takes some time to act and tends to cause a hangover the next day. Nembutal (¾ and 1½ grains) capsules were therefore used as a quick-acting, rapidly eliminated hypnotic, rather than luminal or bromide and chloral mixture. After a patient attempted to commit suicide with Nembutal the capsules were withdrawn and Nembutal elixir substituted. Amytal and luminal injections are given if necessary, but are rarely needed if sufficient time is given to listening to the patients.

FURTHER TRAINING OF WARD PERSONNEL

During the first few days the ward personnel were very jittery and they required constant encouragement and reassurance. Further meetings to talk over the problems of the wards were held several times a week for all shifts during their working hours. It has been found that if the problems of one ward are considered, other wards faced with similar difficulties are helped. The attendants take criticism from each other when they are unable to accept it from the doctors. As the conferences continue the dynamics of psychiatric illness are discussed in simple language with particular reference to therapy. The necessity of listening to patients rather than instructing them has been emphasized. Once the program was well under way the number of meetings were reduced to one a week.

Emphasis has been laid on not humiliating patients, carrying them along in a program rather than directing them. It was pointed out that many of our patients were in hospitals because they had been repeatedly ordered what to do—cheer up, behave themselves, go out and enjoy themselves, do this and that—and their personalities had become constricted thereby. By encouraging patients without condescending to them we help their personalities to re-expand. Dis-

cussion in these terms is much more acceptable than talking about constriction of the ego by the overpowering super-ego.

The attendants have been made to understand that their part in the psychotherapeutic framework is as important as that of the doctor. They must not be afraid of taking up the doctor's time in reporting their problems, because without adequate information he is unable to function properly.

As soon as the ward personnel were able to accept the program, emphasis was laid on the role of rejection in the etiology and symptomatology of the behavior of our patients. Understanding why a patient is so demanding makes the staff much more tolerant of her overwhelming need for attention.

E.F., a 24-year-old epileptic, was belligerent and unmanageable on her ward. She is the daughter of a prostitute and does not know who her father is. While she was a child her mother entertained her paramours in the room she shared with the patient. When the patient commented she was told that she would do the same thing when she grew up. She feels extremely rejected by her mother.

The patient was transferred to another ward where the attendant in charge was very plump, friendly and motherly. She became very attached to this attendant and kept close to her all day. After a week on the new ward the attendant complained that while the patient clung to her like a leech, she called her down behind her back. The attendant was reassured and it was pointed out in simple language that the patient had a great need to be wanted and loved. The attendant had, in fact, become a mother-substitute. The rejection by the patient was part of the patient's attitude to her built-in mother image. The patient is now much more manageable and less disturbed, although she remains very demanding.

A serious difficulty was encountered when the attendants' moral outlook was outraged.

M.D. and L.W. are psychopaths, aged 20 and 18 respectively. They both have families who reject them. They were inseparable, going everywhere together, dancing with each other and sleeping in each other's beds. At one meeting an attendant suggested that they should be parted and placed on different floors in the building. This proposal met with the approval of all the employees but it was pointed out that this apparently lesbian behavior was only a symptom of the psychopathology, not the cause. The reason for their behavior was that each one found a mother-figure in the other. Separation would therefore not be helpful.

M.D. has now formed a mother-daughter attachment with an attendant and L.W. now has a strong bond of the younger sister-elder sister type to the nurse in charge of the evening shift. Five months after the start of the program they were both sent on convalescent care to the charge of these employees.

After the program had been in operation for 6 weeks the service was visited by a psychiatrist from another hospital. He went to all the wards, interviewing personnel and asking their opinion of the changes in the handling of patients. All the attendants professed to be satisfied with the new system. At the next personnel meeting it was suggested to the attendants that they had not been honest about their feelings. That this was so was proved by the flood of hostility let loose. It was obvious that while they were following orders they much preferred restrictive measures.

At the discussions many valuable suggestions on handling patients have been put forward by the attendants. All these ideas are noted down and every attempt is made to act on them. One of the elevator operators in the building suggested that, since the use of restraint was forbidden, the attendants should be taught ju-jitsu. He was therefore invited to attend the personnel conferences to learn what was actually happening.

We have been greatly impressed by the change of attitude in the personnel as well as the patients. They seem much more interested and contented in their work than previously. Certain attendants whose attitude is rigid have been unable to accept the program in its entirety, believing in the disciplinary value of restraint. They are being retrained by the doctors who go up to the ward, pick two or three noisy, deteriorated patients at random and take them to the nurse's office along with the attendants and they all sit down with coffee and cigarettes. The doctor listens and the patients can talk, stay quiet, walk about or shout, as they wish. Within a few minutes the noisiest, most delusional patient calms down. In this way the attendants see psychotherapy in action. We emphasize the fact that a patient behaves in a certain way because she is ill and that patients do not "put on an act." Even patients with hysterical fits have them because of their sickness.

A news sheet for personnel has been started and is distributed to all wards, dining room and OT shops. It outlines progress made, activities for patients and changes in the program for the coming weeks.

OTHER CHANGES IN THE HANDLING OF THE PATIENTS

The whole attitude to patients has been changed to one of permissiveness. Whereas, previously there has been little out-of-the-building activity, patients are now being taken for walks at every possible opportunity, particular emphasis being placed on taking out excited and deteriorated patients. Now we take out as many patients as we can rather than just the best behaved. Every ward is completely emptied of patients at least twice a week, when they must all go out for a walk. If a patient refuses to go out she must wait on another ward until the others return.

At the end of the first week 20 reclining chairs became available. They were put on the most disturbed wards in place of benches. The improvement in the patients' behavior was immediate. Full length glass mirrors have been installed on all the wards. Only one has been broken, but the patient who broke this has broken no other even though she has had an opportunity to do so.

Two weeks after the program got under way it was decided to leave open the doors between the wards. For the first few days not only did friends visit each other's wards but some patients spent all day walking back and forth between wards rejoicing in their newly found freedom. At first the attendants objected to the doors being unlocked, but now they feel more secure with the doors open.

Six weeks after the start of the program all restraints were removed from the wards. It is important to note that seclusion for difficult patients has never been permitted in this hospital. Baths and wet and dry packs are not used.

Patients are now allowed to seal their letters and put them in special mail boxes on each floor of the building. The only censorship performed is a checking of addresses. We encourage patients to make outside phone calls unless they are confused. One patient phoned the New York Daily News and the District Attorney (both collect) but fortunately no trouble followed. Now we permit phone calls but an attendant must get the number and check who is at the other end before the patient is allowed to speak. Patients with honor cards may make calls unsupervised.

Patients are now permitted to smoke wherever they wish and can carry matches.

Special conferences were held with the dining room, occupational therapy and recreational therapy staffs and the new principles of handling were explained to them. All personnel who come into contact with the patients now come to the attendants' discussion groups. The chief dietitian also attended and suggested that patients have knives and forks instead of only spoons to eat with. Arrangements were made to keep the employees' dining room open half an hour later at lunchtime so that it was no longer necessary for them to rush the patients' mid-day meal.

We encourage patients to wear their own, rather than hospital clothing and to use their rings, watches and costume jewelry. Many carry scissors, needles, hand-mirrors, etc. and a few have phonographs and portable radios.

After two months we were forced to reopen a disturbed ward, euphemistically called "Ward 9." The nurse in charge and attendants have been chosen for their motherliness and ability to give support and listen to patients. Even here the doors are now open for patients to wander in and out, although they had to be locked for two months after the ward was opened. Even on this disturbed ward all patients are taken out for a walk at least twice a week. All ECT is given on this ward. Patients are very fearful of getting shock so we now premedicate them with 3 grs. of Nembutal.

Spanish speaking patients have been concentrated on 3 wards with other nationalities. There are Spanish speaking attendants on these wards and the patients get support from them without feeling segregated.

It is sometimes possible to listen to a disturbed patient over the phone. This saves the doctor's time and has the further advantage of bringing psychotherapy to the patient without delay. She is seen personally as soon as convenient, certainly within two hours.

Unless a patient is very disturbed her visitors are encouraged to take her out when they visit. Visiting is encouraged every day and over-night trips home are permitted

whenever the patient is well enough. Attendants are allowed to take patients out to their homes during their time off duty. A minimum of two patients must go with each employee. This rule was laid down to reduce sibling rivalry which is a big problem on the wards.

If a patient is transferred to the acute service she is visited by the attendants on her ward until she comes back. In this way she does not feel forgotten. A special letter of welcome, signed by the doctor and nurse in charge of the service, is sent through the mail to every new patient entering the building.

Dances are held twice a week with male patients from other services. Patients sit together, hold hands and behave as at a normal non-hospital dance. We have found that if the doctor dances a few steps with difficult patients they often become much more accessible later.

We have a sing-song one afternoon a week attended on the average by over 200 patients. This concentrates mainly on deteriorated patients and emphasis is laid on participation, having records and music for clapping in time. We also run a weekly music evening. The hospital librarian comes in one evening a week and reads to an average audience of 35 to 40 patients. The patients have started a garden on an acre of waste land near the building. All of the above activities are independent of the hospital recreation and occupational therapy departments.

Whenever teaching movies are shown to the staff we encourage patients to attend and often have special performances for them. A particularly successful film was "Out of Darkness" narrated by Orson Welles and made originally for CBS-TV.

Three months after the program was started an "honor ward" was opened. This ward was for patients who were given parole of the grounds and also those who were likely to get parole or to be sent on convalescent care in the near future. Since then two other wards have been upgraded. For the first 6 months 41 patients were given honor cards, 7 of these having been in the hospital for over 15 years, and only 4 for less than 1 year. Very often when a patient is disturbed and does not have an honor card, she is told "Go out for a walk and do not come back until you feel better." This appears to work very well.

A number of dilapidated patients have been taken to the dress-making shop and were permitted to choose patterns and material for dresses. They are then measured, many more measurements than usual being taken. Instead of having only one fitting they have several and are really treated like "duchesses." They are also given permanent waves. This gives a considerable boost to a patient's ego. The importance of hairdressing cannot be over-emphasized and we now have several patients working in the beauty shop of the service. Hairdressing is also done on the wards.

Emphasis is laid on patients proving by work that they have recovered sufficiently to leave the hospital. As restrictions on patients were relaxed it was found that personnel began interpreting rules according to their own wishes, leading to considerable trouble.

CONVALESCENT STATUS PATIENTS

Number on convalescent status during the 12 month period prior to the new program	Number on convalescent status during the first 6 months since the start of the new program	Number of years patients were in the hospital
—	1	10-15
1	5	6- 9
—	3	5
—	7	4
1	4	3
1	2	2
2	1	1
Totals: 5	23	

Six months after the program was started an epidemic of fires broke out on one of the honor wards. Instead of taking away the matches the situation was handled by holding elections and setting up patient government. As a result the patients are developing an increased sense of responsibility and, in consequence, more self-respect.

It will be noted that convalescent status rate is now approximately 9 times what it was previously. We expect the rate to increase even more in the future.

DISCUSSION

The program outlined above has now been in operation for about 7 months. It is de-

pendent on close doctor-attendant relationships, making the attendants feel the importance of their work. The importance of regular staff meetings for all employees at least once a week cannot be over-estimated in the maintenance of employee morale.

The doctor must make himself available to the patients, instead of standing on a pedestal, as happens so often in mental hospitals. While a certain minimum of rules is necessary, the sicker the patient the less discipline is she able to accept.

The whole program is directed towards boosting the patients' ego and self-respect. We find that aggressiveness and combativeness have decreased greatly. Patients who were constantly in restraint are now going home on over-night visits and a number have already been sent out on convalescent status. Difficult patients sent to us from other services usually quiet down in 24-48 hours and destructiveness has markedly diminished.

We find that without changes in medication our epileptic patients are having fewer seizures.

As patients get honor cards and are more easily able to run away from the hospital, their insistence on leaving appears to diminish. The doctor can then much more easily assume the role of therapist rather than that of jailor. Aggressive patients often stop being antagonistic when given parole of the grounds.

Since the start of the program no tube feedings have been necessary although they were needed previously. There are now no restraints available on the wards and nobody misses them. It has not been necessary for any personnel to work double shifts since the program started, although this was quite common previously. We find that in an emergency we are able to carry on satisfactorily with only a skeleton staff, whereas previously we were obliged to call in personnel who were going off duty.

The only barrier between the patients and the outside is the elevator connecting the floors, which requires a key to operate it. Because of the design of the building, which has 4 floors connected by elevators it is impossible to have a truly open building. We feel that future mental hospital buildings should have no more than 2 stories with wide stairs to avoid this difficulty.

It is difficult to find enough work for patients to do although twice as many go to occupational therapy as previously. We hope to arrange for contract work to be done by the patients. This will have the advantage of keeping them busy all the time and also enabling them to make some money, thereby increasing their self esteem. If the state could make available a small weekly sum for pocket money for those unable to work it would be well repaid in the improvement in patients' behavior. An increased expenditure by the state for clothing would also be well worthwhile.

A difficulty we encounter is that of finding a suitable placement for patients ready to go on convalescent care when they have no family to go to or when the relatives are unsuitable to look after them. This problem has been partly solved by permitting employees to take patients out on convalescent care to their own homes, but the final answer must be for the state to set up night hospitals and sheltered hostels as half-way houses towards independence.

A further problem is that of the sexually promiscuous patient. Perhaps a change in the state law to permit sterilization of such patients would be an advantage.

Conclusion

When a program of non-restraint is put into action both personnel and patients require re-training.

In a period of 6 weeks all physical restraints have been abolished on a disturbed service. The patients are much more relaxed and the personnel take a much greater interest in their work. Abolition of restraint has been attained without any increase or change in personnel.

Noisy and aggressive patients have shown a much better response to the new regimen than those who are regressed and deteriorated.

Although the program has been in effect for only a short time, our convalescent rate is already 9 times what it was in the previous year.

We have attempted to prove the truth of the statement of Dr. John Connolly, a hundred years ago: "Restraint and neglect are synonymous. They are a substitute for the

thousand attentions needed by a disturbed patient."

Addendum

Twelve months after the start of the program the patients are running their own news sheet.

Two of the 3 floors are completely open to the outside and on the third floor the doors between the wards are left unlocked.

At the end of the first year of the program 52 patients had been sent out of the hospital, 46 of these having been hospitalized for more than one year.

TEMPORARY INSANITY AS A DEFENSE[1]

LEO L. ORENSTEIN, M. D.,[2] AND ALFRED WEISSTEIN, L. L. B.[3]

Insanity as a defense poses the same problems whether the condition is transitory or longer lasting. It is not the purpose of this presentation to discuss the overall problems confronting psychiatric testimony in the courtroom, but rather, to call attention to a number of specific issues. These are: 1. that transitory psychotic reactions occur frequently; 2. that they are encountered and dealt with in the usual clinical manner by the psychiatrist; 3. that at times a person suffering from a transitory psychosis commits a crime, and 4. that both psychiatrists and lawyers treat the subject of temporary insanity in a way that readily demonstrates a state of confusion concerning the issues at hand.

Difficulties encountered in establishing that a person, well at time of examination, was mentally ill in the past, stem from a number of sources, chief of which is the lack of agreement among clinicians themselves. Every experienced psychiatrist has had many opportunities to diagnose and treat persons suffering from acute psychotic reactions. One sees them frequently in the admitting office and wards of a psychiatric division of a general hospital, as well as in private practice. For reasons not entirely clear to us, competent physicians acknowledge what might be termed a double standard when the question of transitory psychosis (temporary insanity) is argued in the courtroom.

Wertham(1), in describing the "catathymic crisis," presents convincing evidence of the existence of transitory psychotic reactions. Davidson(2) acknowledges the presence of the transitory state when he says, "We have to deal with operational concepts, not with abstractions; with the actual and anticipated *deeds* of people, not with their words." On the other hand, *Psychiatry and the Law*, written by Guttmacher and Weihofen, states:

> A supposed form of disorder frequently encountered in the courtroom, though not elsewhere, is "temporary insanity." There are, of course, disorders characterized by brief periods of derangement or lapse of consciousness. . . . A state of dissociation occurs in which the individual may carry out very complex acts of which he is only dimly or not at all aware later. Courts have rightly taken a dim view of this defense,—but if it could be proved actually to have been the case—a difficult if not impossible task—the defendant should logically not be held responsible any more than a somnambulist is held for acts done while sleepwalking.

Is it true that a state of transitory psychosis (temporary insanity) is encountered only in the courtroom? Would it not be more accurate to say that the courtroom is the only place where we are called upon to publicly establish diagnostic criteria. Why should it become more difficult to accomplish this before a judge and jury than before medical students or residents? It is our contention that some of the difficulties in the practice of forensic psychiatry stem from the clinicians' reluctance to recognize a set of criteria which must be maintained with equal conviction both in ward, consultation room, and courtroom. Whether a person is at a stated time sick or well, sane or insane, does not depend on what lawyers claim, public demands, or expediency warrants. Rather, the question can be and must be answered in clinical terms.

In somnambulism and temporary loss of consciousness, there exists a state in which the person's ego functioning is greatly diminished or nil. May it be that diminution of ego functioning can occur even when the patient is in a fully wakeful state? It is our experience that this happens time and again, and is readily observable as we go about treating patients daily. When a hospitalized patient is lucid, cooperative and resting, his ego functioning permits contact with reality. Should we find our patient a few hours later in a state of agitation, confusion, hallucinated and totally unmanageable—what is the state of ego functioning at this time,

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[1] Read at the 113th annual meeting of The American Psychiatric Association, May 13-17, 1957, Chicago, Ill.

[2] Asst. Clin. Professor, N. Y. University and Bellevue Med. Center.

[3] Member—New York County Lawyer's Association.

and how much contact with reality does he have?

We raise these questions because it is our opinion that the establishment of a defense of insanity must demonstrate that the defendant suffered from diminution of ego functioning of such severity as to reveal diminution of powers of judgment, perception, control over instinctual drives and contact with *reality in toto*. It is the quantity of ego functioning that makes possible differentiation between right and wrong, and the ability to correctly perceive reality. This issue has been frequently raised, but not clarified since the days of the McNaughten trial.

CASE MATERIAL

In 1936, during the experimental phase of insulin-shock treatment of schizophrenia, a 19-year-old boy was admitted to Bellevue. The history was negative for any physical or mental illness. The young man was attending college and enjoying the usual social experiences. He had a girl friend with whom he "broke off" recently. At about the same time he became tense, restless, complained of fearing someone wanting to harm him, and admitted to vague auditory hallucinations. He was diagnosed as an acute paranoid schizophrenia—most suitable for the insulin therapy.

As the work-up progressed, the patient's symptoms were clearing rapidly. He was given one treatment (small non coma producing dose of insulin). Within the next few days he was free of all presenting symptoms and was discharged to his family. We think this to have been a case of "acute hallucinosis."

In December 1947, we were consulted by a young woman, age 19½. She was a highly intelligent person who completed college at 18 and was now working for a Master's degree. The girl was overtalkative, euphoric, and gave a history of a good deal of overactivity in recent days. This developed while she was residing on the campus of an out-of-town college. She entered into a number of indiscreet social relationships, said and did things that caused embarrassment to those about her, and of course attracted too much attention from school authorities. The clinical picture was an acute manic psychosis. The onset was definitely of very recent date—about 4 days prior to examination. The predominant symptoms mentioned were apparent even to the non-medical observers. When seen 4 days later she was less agitated, and showed some appreciation of her grossly irrational behavior of a week ago. The functions of the ego of this patient were greater and her contact with reality better. She returned at frequent intervals, and in about 2 months was free of psychotic symptoms.

The above cases are typical of acute psychotic reactions. While these are frequently encountered in civilian life, they were observed with greater frequency among military personnel during World War II.

Turning now to the courtroom scene, we find the clinical picture to be not different. We cite two medico-legal cases.

In one, a woman of 25 was seen on January 25, 1957. She was seeking custody of her son. The youngest of 9 children, she never knew her father, who deserted her mother around the time she was one year old. She was reared by her mother and older 6 brothers and 2 sisters. In 1949 she met a soldier whom she married in 1950. Soon thereafter, this woman came to live with her husband's family and difficulties ensued. Following his discharge from service, the husband made it clear that he wanted to live as close to his parents as possible. He too was seen by us, and found to be a passive, dependant man.

A frustrated marriage relationship caused her to leave New York, and return to her relatives in the South. She took her boy with her. This was in July 1954. Shortly after her departure, the husband started annulment proceedings on grounds of desertion. In March of 1955, he informed his wife that the marriage had been annulled.

Shortly after receipt of this news, the woman became moody, at times she laughed for no apparent reason. She claimed to be a movie star or famous dancer. (While in elementary school she won a prize for dancing.) Her behavior prompted her family to take her to a doctor and she was committed to a state hospital (July 1955). There, several diagnoses were made, ranging from manic reaction to hebephrenic schizophrenia. She was given several electric shock treatments, and discharged from the hospital a few months after admission. Review of the clinical records fails to disclose descriptive material warranting any of the formulations beyond their being diagnostic impressions. What is clear from the total case history is that the patient, upon learning that her husband had actually terminated the marriage (rejected her), attempted to deal with this recurrence of painful rejection (father rejected her at the age one), by fleeing from reality into a state of hallucinatory gratification in which she could deny the painful reality. She has been well since recovery, and on recent clinical evaluation manifested nothing to warrant consideration of a schizoid personality. Her ego functioning is good and contact with reality equally so. On the basis of our opinion that she is not schizophrenic nor was in 1955, but rather suffered an acute psychotic reaction at the time, the judge gave her custody of the boy.

The second case and the one that prompted us to enter this discussion, concerns a 31-year-old defendant who shot and killed a man on April 20, 1954. The circumstances preceding the shooting were the following:

For many weeks, Brannen was threatened by 'phone, through intermediaries, and in person by

a man who accused him of being a "stool pigeon." On March 25, 1954, the threatening person (Lee) became an assailant and together with accomplices broke into Brannen's home, and attacked him with knives. In his attempt to escape, Brannen jumped through a second story window and ran in panic, crashing through a glass door, to find security in a neighbor's home. He was taken to a hospital, where the many lacerations were sutured, and sent home. Before this attack upon him, Brannen complained to police that he was being threatened, and named the threatener. After the assault upon him, he again went to the police to ask for aid and protection. A detective was assigned to his case, but threats continued.

A skilled worker, Brannen began to avoid his work, remained home, and became depressed and "jittery." His avoidance of work caused building inspectors to prod him to complete jobs he had taken on. Unsuccessful in his attempt to obtain a pistol permit, he went out and bought a shotgun and shells. Thus armed, he remained at home. Soon thereafter, Lee again rang the defendant's doorbell and threatened him by calling through the window. Brannen responded by phoning the police, who told him his case was in charge of a certain detective who would get in touch with him. The detective did not call back.

Prompted by depletion of funds and proddings by building inspectors, Brannen decided to return to work. On April 20, 1954, he placed his shotgun and a few shells in the back seat of his car, and drove to a job. Following a day's work, he was returning home at about 7 P. M., when he was stopped by a traffic light. As he looked to one side of the busy street he saw a negro couple walking. He had the impression that the man was Lee, and that he was walking towards the car. Brannen got out of his car, took the gun from the back seat and loaded it with two shells. By this time he thought he saw Lee quicken his step. When the man was quite close, Brannen was sure the man had his hand in his pocket—probably on a gun or knife. Fortified by his own gun, Brannen had the feeling he would attempt to talk to Lee and tell him he had never "stool pigeoned" to the police. At the same time his fear and tension mounted and he was sure Lee was not walking but running towards him; he pulled the trigger once, and when Lee "kept on running" he shot again. Lee fell. Brannen got into his car and drove to the same police station where he had called for protection many times, to report his killing of Lee. He was placed in a room and told to wait. Four hours later he was confronted with an unscathed Lee. Brannen had killed a man he had never before seen. When examined in December 1954 and January 1955, Brannen was mildly depressed, fearful and anxious. It was difficult to reconcile his conviction that the man he shot at was not Lee and was not running towards him to again attack him.

A careful study of the entire history obtained from all available sources, led us to the opinion that Brannen, threatened, began to fear for his life. His fear mounted, as did the anxiety and tensions. Fear was replaced by a phobic state. As the ego functions were further impaired, Brannen found himself in a state of hallucinatory psychosis in which he felt attacked by a known assailant and acted in what he considered to be justified self-defense. Two serious questions had to be considered—one, error in identification, the other, a deliberate vengeful act.

That this was not a matter of simple misidentification is supported by the fact that Brannen had seen Lee many times, and had ample time and opportunity to observe the man prior to the shooting.

Concerning the second possibility, Brannen had ample opportunity to remove the threat to his life at the time he sat in his house with the gun and shells available when Lee last called to repeat his belligerency. He only 'phoned the police and asked for protection again.

Furthermore, he went to the police directly after the shooting and reported the same. The entire social history of the defendant points against his attempting to do a vengeful shooting of a rather persistent provocateur. Brannen, born in the South, was endowed with limited intellectual powers, and congenital syphilis. He was fatherless since infancy, and lost his mother when he was 14. Feelings of insecurity were stimulated in him early in life, and fostered since by social and cultural factors. Among the latter was lack of formal schooling. In spite of the limitations mentioned, Brannen learned a trade, made a good social adjustment, and had never been arrested. That he could fail under stress was already borne out by his discharge from the Army after a few months of service because of "inadaptability to military service."

In testifying before the jury,[4] we argued that Brannen after prolonged exposure to real danger, reacted with justifiable fears. As time passed and the source of danger continued, normal fear became phobic. Diminution of the ego functions impaired the powers of discrimination and judgment. At the time of the shooting it was our opinion the man was in a state of acute psychosis in which condition his perceptions,

[4] Hon. Peter T. Farrell presided at the trial.

judgment, and all other functions of the ego were overwhelmed and led him to a conviction that he was being again attacked and must defend himself. We think he was in a state not unlike that of a person attempting to escape imaginary assailants, who jumps into a river from where he is brought to the psychiatric ward, or of another patient who thinks the policeman near his bed is a would-be assailant, takes the policeman's gun and kills the officer.

In this case three psychiatrists were appointed by the Court on request of defense counsel or prosecuting attorney. One of them, a man of many years' experience in his specialty, and a member of this Association, refused our invitation for a joint examination. For reasons unknown to us, he was not asked to testify at the trial. He was replaced by a young colleague, who readily admitted that he had never examined anyone charged with a capital crime. This trial ended in a "hung jury" and the second trial took place 6 weeks later. At this time the District Attorney informed the jury that he would not call experts, but would demonstrate with the testimony of the expert called by the defense that Brannen was sane at the time he shot and killed the man.

The jury was satisfied with our psychiatric reasoning. We think that the presiding judge demonstrated a great deal of understanding of the psychiatric issues raised. He permitted the presentation of clinical material and the expression of professional opinion for the jury's consideration. We cite this because it is our belief that a presiding judge can help make psychiatric testimony a dignified presentation of facts, or its opposite, and that the cooperation of judges, lawyers and physicians will improve the court experiences of medical witnesses and thereby help juries understand testimony given by technical experts.

The jury acquitted the defendant by reason of temporary insanity at the time of the commission of the offense. However, this was not the end of the legal problem raised in this case. The legislators, like the psychiatrists, have tended to avoid issues raised by temporary insanity and have made no provisions for dealing with it. Section 454 of the New York Code of Criminal Procedure reads as follows:

> When the defense is insanity of the defendant the jury must be instructed, if they acquit him on that ground, to state the fact with their verdict. The court must, thereupon, if the defendant be in custody, and they deem his discharge dangerous to the public peace or safety, order him to be committed to the state lunatic asylum, until he becomes sane.

This makes it possible to send an acquitted defendant to Matteawan State Hospital. This was done in this case, and was followed several months later by a habeas corpus proceeding. In instances where the defendant is no longer psychotic, he is ordinarily returned to the court of original jurisdiction for disposition. Here, however, the trial court was finished with the man; the hospital superintendent agreed the man was sane and no one seemed to know what to do with him. The judge before whom the writ was argued did not want to order the man's discharge from the hospital on legal grounds.

Situations such as this make the redrafting of existing criminal statutes imperative. When it is possible to convince a jury that a defendant, now sane, was temporarily insane at the time of the commission of a crime, and nevertheless, have him committed to an institution for the criminally insane pursuant to a statute such as Section 454 of the Code of Criminal Procedure of New York, the time has come for the legislature to face the issues raised by cases of temporary insanity and to enact more appropriate legislation. To be compelled to institute a writ of habeas corpus in a case like Brannen's to test the legality of his detention makes a mockery of the expert testimony introduced and accepted by the jury in its verdict. The archaic requirement that a certification of sanity by the superintendent of the institution be approved by the court of original jurisdiction before an inmate may be released would seem on the face of it to be ridiculous, (opinion of New York Attorney General 285, 1942). This requirement was put to a legal test in the habeas corpus proceeding, and for the first time in the history of New York State it was established that a defendant certified to be sane by the superintendent of the institution was entitled to his discharge without

the intervention of any court(6). It may not be too much to hope that challenges such as this will prompt legislative bodies to enact laws which will adequately safeguard the rights of a defendant, and at the same time protect the public.

Summary

It is not necessary to argue the point that transitory psychoses occur, and are seen frequently by the clinician. Occasionally a crime is committed during such a state—sometimes referred to as an acute psychotic episode. We must establish a set of criteria for the clinical diagnosis of the condition when it exists or is alleged to have existed, and these, we feel, will suffice for purposes of defense. We here quote Overholser(4) who quotes Isaac Ray,

Insanity (the word was used then by medical men as equivalent with "psychosis"), is a disease, and as is the case with all other diseases, the fact of its existence is never established by a single diagnostic symptom, but by the whole body of symptoms, no particular one of which is present in every case.

The Ray awards of the A.P.A. have in recent years resulted in a growing body of knowledge, most helpful to forensic psychiatry. We have already alluded to Overholser's award book *"The Psychiatrist and the Law."* Another of these miniature classics is the one by Zilboorg(5). The second winner of the Ray award, frequently humorous, at times bitterly critical, is none the less clinical in his observations. Concerning the M'Naghten rule, he says, "It is the monster of the earnest psychiatrist which prevents him from introducing into the courtroom true understanding of human psychology and of the criminal act." In the Brannen case in Queens County, State of New York, a psychiatrist was asked the question, "What is psychosis?" and instead of being limited to a brief answer was permitted to go up in front of the jury box and with pencil and paper explain schematically the relationship between quantity of ego functioning and psychosis. This was made possible by a team of competent defense lawyers, and even more important, an alert, curious and tolerant judge. One wonders whether Judge Farrell was even interested in adding to medico-legal history when he agreed that the psychiatrist may use diagrams in clarifying his clinical points. Later, the same lawyers and in the same case, further attacked the *status quo* when they were successful in a habeas corpus writ and obtained Brannen's release from Matteawan without referral to the court of orginal jurisdiction.

The Brannen case alone could have been an interesting presentation. We chose to include other clinical material because we desire a discussion of the broader aspects of temporary insanity as a defense. Acute psychotic episodes, or transitory psychotic states, or temporary insanity are terms depicting the same clinical entity. A person in such state manifests in behavior and expresses in words evidence of marked diminution of ego functioning. This may result in disturbance of thinking, perception, and judgment to such severe degree as to make it impossible for the affected person to distinguish reality from unreality.

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THE VERDICT ON THE KINSEY IMPORTS

KARL M. BOWMAN, M.D.[1]

Psychiatrists should keep in mind the powerful forces in our culture that oppose objective discussion and scientific study of sexual behavior. Public attitudes are reflected, for example, in the many laws that label certain sex offenses as unspeakable crimes against nature and in the legal procedures that shrink from a full account of the alleged sex offense.

Post Office and Customs Department officials have often been quick to call something obscene that may arouse individual dislike or disgust. In their review of obscenity in the courts, Lockhard and McClure (Law and Contemp. Problems **20**: 586, 1955) point to obscenity as "one of the most elusive and difficult concepts known to the law," a term for which legislative bodies have seldom tried to provide a "workable definition." The courts have therefore had to work out as best they can their own meaning of an "extremely difficult and complex concept." The question of obscenity is of especial importance to scientists, if the scientific study of sexual behavior is not to be confused with pornography.

A recent United States District Court decision in favor of the Institute for Sex Research at Indiana University again defines the problem of obscenity.

A brief resumé of the case of the United States v. the Institute follows. When, in 1952, the late Dr. Alfred C. Kinsey, who then headed the Institute, applied for permission under Sec. 305(a) of the Tariff Act of 1930 to import certain sexual material, the Acting Secretary of the Treasury declined to exercise his discretion, for this purpose, on the ground that an exception was by precedent "limited to a narrow category of articles and . . . applicable to only a specialized practice of medicine." The decision, however, implies nothing as to the correctness of this action, since the Institute sought no review of it.

Upon Customs seizure of the material, the U. S. Attorney filed a libel seeking the "forfeiture, confiscation, and destruction of certain photographs, books and other articles" on the basis of their being "obscene and immoral" within the meaning of Sec. 305(a). The Institute asked the release of the material, maintaining that the attempted importation does not violate the section, which, if so interpreted, violates certain provisions of the U. S. Constitution. Both the government libellant and the claimant moved for summary judgment, *i.e.*, a prompt and simple procedure and hearing, without jury. The case was heard in the U. S. District Court, Southern District of New York, before Judge Edmund L. Palmieri.

The government supported its motion by only the material itself. The Institute, represented by the New York law firm of Greenbaum, Wolff and Ernst, was aided by the Trustees of Indiana University, who supported the claimant's position with a brief, *amicus curiae* (friend of the court). The Institute's motion was also supported by affidavits sworn to by many distinguished persons, including the president of Indiana University and various physicians, psychologists, academicians and penologists. The Honorable James V. Bennett, Director of the Bureau of Prisons, U. S. Department of Justice, praised the Institute's contributions to an understanding of pathologic sexuality and sex offenders and the problems of sexual adjustment in prison inmates. The University's president termed the Institute really a special research department of the University.

For the purposes of the decision Judge Palmieri assumed, following the Supreme Court decision in the Roth case (354 U. S. 476, 489, 1957), that the disputed material would as a whole by present community standards appeal to the average person's prurient interest. He held, however, that the question of "academic freedom," much bruited in the Institute's oral argument, does not arise in this case because "I believe that Sec. 305(a) does not permit the exclusion" of the material. He framed his discussion in terms of whether the disputed material is "obscene," to whose definition he considered that the word "immoral" adds nothing, nor did the government so contend.

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The judge further noted that the government neither served affidavits "setting forth any facts in opposition to those contained in the affidavits served by the claimant," nor sought by affidavit to show that it cannot "present by affidavit facts essential to justify (its) opposition." Yet it did not concede that the facts stated in the affidavits were true. Although at his discretion the judge could refuse summary judgment, even though the government remained mute, he saw no reason in this case to do so.

There was thus no genuine issue as to 3 facts, the only ones found relevant to the issues at hand: 1. The Institute sought to import the material for the sole purpose of the study of human sexual behavior in various forms and in different cultures. 2. The articles would be available not to the general public but only to staff members of the Institute or to other qualified research scholars. 3. This material would not in all reasonable probability appeal to the prurient interest of such research persons.

In these circumstances, the question for decision was therefore whether Sec. 305(a) in prohibiting the importation of "obscene" material prohibits the importation of material generally assumed to appeal to the "average person's" prurient interest, provided that only persons who will have access to the material will study it for the purposes of scientific research and that the material in reasonable probability will not appeal to their prurient interest. That is, the decision depended on the meaning of the word "obscene" in the section at issue.

In search of a definition, Judge Palmieri defined material as obscene (and not merely coarse, vulgar or indecent in a popular sense) that "deals with sex in a manner appealing to prurient interest." The one to whose prurient interest the work must appeal is usually termed the "average person"; but it must be noted that this rule is applied to cases involving material to be distributed to the public at large. The more inclusive definition must therefore judge the material by its appeal to "all those whom it is likely to reach"; and under it the "average man" test is but one application of the rule. Chief Justice Warren's concurring statement, in the Roth case opinion, was quoted, that present obscenity laws depend largely on the effect of the material upon those who receive it.

"Of course, this rule cuts both ways," Judge Palmieri stated. "Material distributed to the public at large may not be judged by its appeal to the most sophisticated, nor by its appeal to the most susceptible. And I believe that the cases establish that material whose use will be restricted to those in whose hands it will not have a prurient appeal is not to be judged by its appeal to the populace at large." It is concluded, from consideration of several similar cases, that such material may be owned by an institution where its use can be controlled.

The judge also compared the importation of the disputed material with cases upholding importation of contraceptives and books dealing with contraception; and of other goods permitted to enter ports, *e.g.*, narcotic drugs, viruses, serums and toxins, whose potential harm, in the wrong hands, could be incalculable. In these cases the circumstances of the use of the material was held relevant. Similarly, the fact of its "closely regulated use by an unimpugned institution of learning and research" removes the ban from material that would not be importable for general circulation. "The work of serious scholars need find no impediment in this law." The judge also noted that the meaning of obscenity, as developed in the Roth case opinion, was held to agree with the definition of the American Law Institute Model Penal Code, Sec. 207.10(2), Tentative Draft, No. 6, 1957: It includes, under the noncriminal dissemination of obscenity, "institutions or individuals having scientific or other special justification for possessing such material."

Having disposed of these points, Judge Palmieri next considered a point mentioned by the government, that of material as being "obscene *per se*." Again the judge noted that material cannot have a prurient appeal without reference to a beholder. "For what is obscenity to one person is but a subject of scientific inquiry to another." Such importation can also be justified as a conditional privilege in favor of scientists and scholars, but this is only another way of emphasizing the importer's scientific interest.

Two other objections were raised by the government: one, that the second proviso of Sec. 305(a), allowing admission of obscene

books of established literary or scientific merit at the discretion of the Secretary of the Treasury, provides the sole means for such importation. The refusal in 1952 of the Acting Secretary to exercise his discretion would therefore deny admission of the material. The judge considered that since the libelled material is not to be termed obscene, on the theory that its nature must be judged by its appeal to the user, therefore the second proviso does not apply. Nor was he convinced that the enactment of the second proviso was intended "to establish the Secretary's discretion as the sole means by which scientists could import such materials. Indeed, the cases decided since 1930 have not so held."

In its second objection, a *concursus horribilium*, the government contended that the above interpretation allows no workable criteria whereby the section can be administered. Some of the possible dread results are listed. It should be no more difficult, however, "to determine the appeal of libelled matter to a known group of persons than . . . to a hypothetical 'average man'." The necessity for acquiring materials or the value of the result of the research to society is not in question. The act does not warrant customs officials or the court to sit in review of scholars' decisions about a field of investigation. The sole question is whether there is a reasonable probability that, to those persons who will see it, the material will have prurient appeal.

As to would-be panderers of such materials, the theory of this decision, "rightly interpreted," affords them no comfort. Being unconnected with a recognized institution conducting scientific research, they would not easily establish a reason for importation other than gratification of prurient interest.

The opinion also discounted another possibility, the establishment of "myriad and spurious 'Institutes for Sex Research' as screens for importation of pornographic material" to be sold. In addition to these reasons given, the authenticity of any such institute and of its research will always be a subject for investigation. The request, for example, for importation of multiple copies of particular material should raise a strong question as to the individual's claims of scientific purposes. The would-be panderers could hardly "convince anyone that they are serious candidates for the mantle of scientific researcher."

The fact of no reasonable probability for appeal to the prurient interest of those who will see the material was not disputed. Judge Palmieri therefore denied the government's order for destroying as obscene this collection of material imported for scientific purposes and granted the claimant's motion "for summary judgment dismissing the libel and releasing" the material to it.

The government decided on January 2, 1958, to accept the court decision. Attorneys for the Institute believe that the affidavits supplied by many specialists, including psychiatrists, contributed greatly to the court's acceptance of the need for, and scientific validity of, the Institute's study of such material. The record from such unimpeachable sources was so impressive as to go unchallenged by the government. They expect the decision to greatly advance the frontiers of freedom of scientific inquiry in this country.

Judge Palmieri states in his opinion that "the work of serious scholars need find no impediment" in customs barriers under the legal section. The legal interpretation evidently protects a bona fide scientific investigator in importing and using any material for scientific study. A footnote appended to the opinion states that all ideas which do not encroach upon more important interests, even those hateful to the prevailing climate of public opinion, have the full protection of the Constitutional guaranties. "But inplicit in the history of the First Amendment is the rejection of obscenity as utterly without redeeming social importance."

Whether or not this decision advances the interests of academic freedom and of freedom of speech, it protects the rights of scientists to determine their fields of inquiry and to obtain needed material for such inquiry. This question is of major interest to psychiatrists, since sexual behavior is or should be an important topic of study in psychiatry. I have therefore given a rather full account of the recent decision, which the Justice Department will not appeal.

PSYCHIATRIC EVALUATION OF "NORMAL CONTROL" VOLUNTEERS[1]

WILLIAM POLLIN, M.D., AND SEYMOUR PERLIN, M.D.[2]

"Normal control" volunteers play an important role in contemporary research studies. Fundamental physiological and psychological processes, pharmacological evaluations and normal values for new laboratory procedures are often studied in such subjects.

The decision to become a volunteer research subject may reflect personality features which could result in a psychologically unrepresentative sample. Findings obtained from such a sample could not be readily generalized to larger populations. Psychiatric evaluation of a group of 29 volunteer subjects at the National Institutes of Health was undertaken to investigate the relationship between volunteer status and the presence of psychopathology. This report describes that relationship and discusses some of the problems involved in the use of volunteer samples.

A number of prior investigators have studied various aspects of this problem. Brower (1), Maslow(2), Maslow and Sakoda(3), and Riggs and Kaess(4) compared the results achieved on a variety of psychological and psychomotor tests by two student subgroups: those who volunteered to take them, and those who took them as an assignment. They found significant differences between the volunteer and the non-volunteer groups. Lasagna and Felsinger(5) studied a group of student volunteers who participated in a drug response project and found a higher incidence of psychopathology than would be expected in an unselected college population.

Volunteers at the National Institutes of Health.—The majority of volunteers at the National Institutes of Health are members of two small, closely related, Protestant peace religious denominations. Within this group of volunteers, there are some who are conscientious objectors. A smaller group are members of other religious denominations. The volunteers spend from several weeks to two years at the National Institutes of Health, living full time on the wards and participating in a number of different research studies. Since 1954, over 200 have been involved in more than 40 research projects. They receive, in addition to their upkeep, reimbursement of $7.50 to $10.00 per month.

Description of the Study Group.—The subject group was made up of 15 female and 14 male subjects. The members ranged in age from 18 to 30, with a median age of 21. The median educational level was 3 years of college. Of the 24 subjects who were members of the peace sects, 13 belonged to Denomination A and 11 to Denomination B. Eleven of these 24 were conscientious objectors. Five remaining subjects belonged to a variety of other Protestant denominations.

METHODOLOGY

The first 7 of the control volunteers in the present subject group were psychiatrically evaluated in an investigation of personality as a variable in the study of the effect of lysergic acid diethylamide on cerebral blood flow and metabolism(6). The transcribed interviews were independently evaluated by two psychiatrists for the purposes of this present investigation. Subsequently, psychiatric evaluation was made a part of the routine work-up of all volunteer subjects in the National Institute of Mental Health. This evaluation was accomplished within the course of a 3-hour interview, though occasionally two or three interviews were held.

The interview was a semi-structured one. Specific areas of content included motivation, family and personal history, prior adjustment and symptom review. In addition, considerable freedom for the development of spontaneous material was permitted.

Findings obtained by use of interview ratings and psychological tests will be reported separately.

[1] Read at the 113th annual meeting of The American Psychiatric Association, Chicago, Ill., May 13-17, 1957.

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RESULTS

1. *Psychopathology.*—The range of psychopathology in this group of volunteers varied from somewhat intensified adolescent turmoil through neurosis to psychosis. Fifteen of the 29 subjects showed significant psychopathology. Within the framework of the evaluation scheme employed, a definitive diagnosis was not warranted for 4 of these 15 subjects.

Diagnoses were made for 11 volunteers; for 5 of them, there were multiple diagnoses. There were 6 Personality Disorders, 6 Neurotic Reactions, 2 Sociopathic Disturbances, 1 Adult Situational Reaction, 1 Psychophysiological Reaction, and 1 Schizophrenic Reaction. These are shown in Table I.

TABLE 1

DIAGNOSES IN 29 YOUNG VOLUNTEER SUBJECTS

Neurotic reactions	6
Chronic anxiety reaction	3
Phobic reaction	2
Obsessive-compulsive reaction	1
Psychophysiological reactions	1
Adult situational reaction	1
Personality disorders	6
Compulsive personality	3
Passive aggressive personality	1
Schizoid personality	1
Personality trait disturbance, other	1
Sociopathic disturbances	2
Sexual deviation, homosexuality	1
Anti-social reaction	1
Schizophrenic reaction: chronic undifferentiated type	1

The occurrence of psychopathological symptoms was tabulated for each subject. For the group as a whole, there were 22 psychophysiological and somatic symptoms and 4 hypochondriacal preoccupation and polysurgery. In addition, there were 21 anxiety and phobic symptoms, 6 obsessive-compulsive symptoms, and 4 involving paranoid ideation, and 2 withdrawal. Ten symptoms were of an acting-out nature and 5 reflected primarily an affective state. Table 2 shows these in greater detail.

2. *Motivation.*—Two levels of motivation emerged from the interview data. The first consisted of the consciously stated reason for becoming a volunteer and selecting an assignment at the National Institutes of Health. The second was that of unconscious and preconscious determinants, which could not always be elicited.

TABLE 2

PSYCHOPATHOLOGICAL AND PSYCHOPHYSIOLOGICAL SYMPTOMS PRESENT AND BY HISTORY

Anxiety symptoms	18
Phobias	3
Psychophysiological and somatic	22
G.I.	3
Headache	3
Muscle-skeletal	2
Amenorrhea and dysmenorrhea	4
Labile blood pressure	1
Hypertension	1
Acrocyanosis	1
Dermatitis	1
Allergies	4
Obesity	1
Stress incontinence	1
Hypochondriacal preoccupation and fears	3
Polysurgery	1
Compulsions: handwashing	1
Compulsions: other	2
Obsessions	3
Masochistic thoughts	1
Pathological ruminations	1
Obsessive inferiority feelings	1
Depression	3
Emotional lability	2
Eneuresis	5
Speech difficulties	2
Fire setting	1
Homosexuality	2
Projective tendencies	3
Delusions	1
Depersonalization	1
Schizoid withdrawal	1

The consciously stated motivations could be categorized as follows:

(a) *Desire for new experiences.*—Many of these subjects had never been away from their rural environs and looked forward to spending time near Washington, D. C. Socially isolated individuals sought an opportunity for meeting other young people. Subjects who were planning scientific careers were interested in the research activities at the National Institutes of Health.

(b) *Feelings of Obligation.*—Linked to their religious convictions, some subjects spoke of a decision to fulfill their obligations to God and to serve mankind. Others felt an obligation to match the contributions made by servicemen.

(c) *Avoidance.*—A pattern of avoidance of difficult or unpleasant situations by spending time as a volunteer was occasionally described. One such situation was the existence of unpleasant relationships at home.

Another related to the difficulty of making vocational or career decisions.

In approximately one-half of the subjects, an impression could be reached regarding unconscious or preconscious motivations for volunteering. One example of such determinants will be given: subject #1 explained her selection of an assignment at the National Institutes of Health on the basis of a desire for new friends and a wish to get away from her family. She had a history of multiple minor somatic complaints, hypochondriacal preoccupations and polysurgery. For 3 years prior to entering volunteer service, she had worked as a nurses' aid in a general hospital. This was the first period in her life marked by a fairly satisfactory adjustment and some feelings of fulfillment. Her choice of the National Institutes of Health as the first of her volunteer assignments appeared to be part of an unconscious mode of handling unresolved conflicts in hospital situations. After leaving the Institute, she volunteered to work as an attendant in a mental hospital. The choice of a mental hospital was a continuation of the same pattern but, in addition, emphasized increasing uncertainty about her psychological adjustment. Psychotherapy had previously been recommended, but rejected by her.

3. *Relation Between Motivation and Psychopathology.*—A significant difference emerged between the volunteers who were conscientious objectors and those who were not. Of 11 conscientious objectors, 3 had significant psychopathology (27%), and were diagnosed; of 18 non-conscientious objectors, 12 had significant psychopathology (67%), 8 of who were diagnosed.

There was also a marked difference between the extent of psychopathology in the subgroup of subjects who were members of the peace church denominations, compared to the subgroup who belonged to other denominations. In the peace church group, 10 of 24 subjects had significant psychopathology (42%); among members of other religious groups, 5 of 5 had such pathology (100%). There was no significant difference in the incidence of diagnosed pathology between male and female groups.

4. *Personality Differences.*—Within the volunteer group as a whole, marked differences were found in personality structure. There was wide variation shown in the types of defense mechanisms employed, the extent to which anxiety was integrating or disintegrating and the degrees of involvement and responsivity shown by different individuals characteristically and in periods of stress. A preliminary report describing the relationship of such personality variables to differences in cerebral metabolism in the first 7 volunteers has been presented(7).

Discussion

There are 3 subgroups in the volunteer sample: 1. Conscientious Objectors; 2. Peace Sect members who are not conscientious objectors; 3. Volunteers of other religious denominations who are not conscientious objectors. As regards the conditions contributing to becoming a volunteer, and in the incidence of psychopathology, these subgroups differ significantly.

In the conscientious objector subgroup, the individual subject did not make a decision to enter the volunteer service as such, but rather, in conformity with his cultural and personal values, that he would not enter the armed forces. Once this decision was arrived at he was automatically assigned to the appropriate Volunteer Service Committee. In the subgroup of Peace Sect members who were not conscientious objectors, this type of external pressure was not present. However, both of the closely knit, communal sects to which members of this group belong strongly encourage their young people to enter volunteer service. Doing so is very much part of an ongoing, active, socio-cultural tradition. In the subgroup composed of volunteers who were not members of the peace sects nor were conscientious objectors there was neither the external pressure of the conscientious objector group nor the cultural tradition of the peace church group underlying entry into volunteer service. For them, therefore, volunteering represents to a greater extent a personal choice.

The prevalence of psychopathology varies considerably in these three subgroups, in direct relationship to the extent to which volunteering appears as a personal rather than an externally pressured or externally favored act. In the conscientious objector group 3 of 11 subjects showed significant

psychopathology (28%) for all of whom diagnoses were made; in the group of nonconscientious objectors from the peace churches, 7 of 13 subjects had significant psychopathology (59%), 4 of whom were diagnosed; and in the group who were not members of the peace sects nor conscientious objectors, 5 of 5 subjects had significant psychopathology (100%), 4 of which were diagnosed. (As noted, the trend of increased incidence of psychiatric diagnoses is similar to that of the psychopathology.)

Lasagna and Felsinger have previously reported a high incidence of psychopathology in a group of 56 male college volunteers who were participating in a drug effect project (5). Basing their results on Rorschach tests and a psychological interview, they found 27 cases of "severe psychological maladjustment" in their group, an incidence of psychopathology of 48%. Such an incidence is much higher than that reported for an average unselected college student population. The percent of subjects in this present sample who show significant psychopathology is quite similar (52%). However, the breakdown into subgroups indicates that it cannot be assumed that all volunteer populations will be unrepresentative with respect to incidence of psychopathology. The incidence appears to vary widely depending upon the conditions influencing the decision to volunteer. In this group of subjects, the incidence increases when the act of volunteering for medical research programs is not linked with external reinforcements.

The personality variations shown within this group, and the suggested relationship, under certain conditions, between volunteering as a research subject and an increased incidence of psychopathology, focus attention on two questions involved in the selection and use of volunteer subjects for research purposes.

The first concerns the extent to which psychological adjustment needs to be taken into account in choosing a volunteer group. When an investigator is studying a drug effect or a biological or psychological process, he is usually interested in results that will be pertinent to a population beyond his experimental group. In choosing such a group, one necessarily pays attention to certain criteria which appear to be related to whatever hypothesis is being investigated—for example, age, sex, or state of physical health—and ignores a great many others—color of hair and eyes, for example—which do not seem important. Psychiatric status is one criterion that has usually been ignored, except for the exclusion of gross psychopathology. Failure to employ psychiatric status as a criterion may skew results in a number of investigative areas. Many biological systems for example, are intimately associated with and affected by homeostatic responses to stress and many investigative procedures involve a significant degree of stress for the participating subject. The intensity with which an individual experiences any situation as stressful, and the manner in which he copes with such stress, are functions of his unique previous life experiences. A volunteer group composed of individuals with psychiatric illness is apt to reflect the high level of prior stress, or the decreased ability to cope with stress, of its members. It may thus yield different results in studies of various physiological or psychological functions than one with a low percentage of individuals with psychiatric illness. Of particular pertinence to physiological studies are the marked differences in the extent to which individuals in this volunteer population characteristically used psychophysiologic processes as a defense against anxiety.

The presence of a relationship between volunteering and psychopathology, therefore, suggests that a determination of the volunteer's psychiatric status is an additional variable that needs to be taken into account in biological as well as psychiatric studies.

The second question has to do with the possibility of loss of significant results through failure to take into account the psychiatric status of participating subjects. With respect to psychiatric factors, a volunteer group is usually treated as a homogeneous one except in studies which are specifically psychophysiologic in design. In actuality, the volunteer group is clearly not homogeneous. Any volunteer group is composed of various subgroups on the basis of personality dimensions as well as psychopathology. When these subgroups are not distinguished and individually studied, findings can average out and fail to be recognized.

Psychiatric evaluation should be con-

sidered an integral part of the selection and study of all volunteer subects.

Conclusions

1. Psychiatric evaluation of a group of 29 volunteer research subjects demonstrated the presence of significant psychopathology in 15. In 11 of the 29 subjects psychiatric diagnoses were made.

2. There was an inverse relationship in this volunteer group between the presence of psychopathology (and psychiatric diagnosis) and the extent to which environmental influences contributed to serving as a volunteer.

3. The incidence of psychopathology in a subgroup whose volunteer status was largely due to their draft status was 28%; in a second subgroup whose volunteer status conformed with socio-cultural tradition, 59%; in a third subgroup where neither of these factors was operative, 100%. The incidence of psychiatric diagnosis increased in the same direction.

4. The volunteer group showed considerable differences in the motivations involved in volunteering, in the ability of its members to accommodate to stress, in defense mechanisms employed, and in the tendency to somaticize anxiety.

5. These differences, and the relationship between volunteering and psychopathology, raise a number of questions pertinent to the selection of volunteer groups, and the interpretation of results obtained from them. These questions are discussed.

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NEUROTIC INTERACTION AND PATTERNS OF PSEUDO-HEREDITY IN THE FAMILY

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Recent years have brought increasing interest in the dynamics of interpersonal relationships and in particular in the study of interaction in the family. This shift of focus from the individual to the group made the development of new methods of collecting, assembling and processing data necessary. J. L. Moreno's sociometric techniques(1), K. Lewin's method of group dynamics(2) and J. Ruesch's systematic study of networks of communication(3) are important steps in this direction. N. Ackerman paid special attention to family diagnosis and family therapy(4) centered about the tasks of child rearing, while Th. Lidz(5) and his associates have been engaged in major research projects concerning the impact of pathological behavior patterns on both the individual and family structure, and in their transmission from one generation to the other.

T. Leary of the Kaiser Foundation in California(6) focussed on more elementary facets of interpersonal communication. He seeks to capture and define so-called interpersonal reflexes as they manifest themselves in 3 levels of personality in group situations. His inventory of 16 interpersonal reflexes contains such contrasting pairs as "managerial-autocratic" *vs.* "modest-self-effacing," or "competitive-exploitive" *vs.* "docile-dependent." He found that behavioral attitudes of this kind are subject to reinforcement through social interaction. Applying an essentially sociometric technique Leary uses man as the measuring instrument of man. For instance members of a therapy group are called upon to rate each other's interpersonal behavior on a checklist of his 16 variables.

The present study approaches the problem of interaction in the family from an essentially clinical, phenomenological point of view. It focusses on a broad spectrum of behavioral elements and configurations as they present themselves to the clinical observer. The most outstanding elements and configurations discernible at such an approach are the attitudes and personality traits of a given person. An attitude has been defined as a person's observable tendency to act or behave in a certain way. It is thus of a higher order of complexity than Leary's fleeting "interpersonal reflexes." It implies an attempt at predicting behavior, based on unconscious or intuitive computation of the frequency of a given behavioral configuration which has been observed in the same person in the past. For instance, describing a child's attitude as "docile" implies the short-term prediction that he can be expected on the basis of his past performance, to behave in a docile way within a given social context, and to play a certain social role, *e.g.*, in relation to his mother. In the same way, describing the mother's attitude as "controlling" implies the prediction that, on the grounds of her past behavior, she can be expected to behave to her child in a controlling manner. If she is found to behave consistently in a controlling way not only in relation to the child, but in relation to everybody with whom she comes in contact, this behavior can be described in terms of a character trait.

Viewed thus, a trait is essentially a fixed attitude manifesting itself in a multiplicity of social roles. It implies a long-term prediction based on a great number of specific configurations observed by the investigator and his associates. In a similar vein, it could be stated that the psychoanalytic concept of character traits or character defenses is likewise of an essentially probabilistic nature, arrived at on the basis of an unconscious computation of the frequency of certain behavioral configurations. It amounts to a diagnostic evaluation of the composite picture of attitudes a person is wont to exhibit in diverse social roles.

The present study is based on a list of 30 attitudes and/or traits, as defined here. They are grouped in 10 triads or clusters of 3 traits. Each triad or cluster of traits or attitudes is marked by the numerals I to X (Table 1).

[1] 11 East 68 St., New York 21, N. Y.

The first triad specifies a giving, supportive, affectionate attitude. These characteristics are closely inter-related and partly overlapping, though not synonymous. A giving parent may, or may not, be supportive and affectionate as well. On the other hand, there is always an attitude of giving implied by a supportive attitude, just as a supportive element is usually present in an affectionate approach. Social psychologists describe this type of shading and overlapping as scaling of attitudes. Their study plays an important part in public opinion polls, questionnaires, and the like.

The cooperative, permissive, indulgent attitudes contained in triad II are listed according to the same principle, as are the rest of attitudes and traits listed from I to X in our Inventory of Traits. It should be noted that these attitudes come close to forming a merging scale or continuum, ranging from socially desirable, or at least acceptable, types of behavior to socially less desirable, "neurotic" or frankly disturbed behavior. Giving, supportive, affectionate attitudes, are found at the top of the Inventory (Table 1), or on the extreme left of Charts 1-16. Competitive, rejecting, hostile-punitive or sado-masochistic attitudes are located close to the lower end of the Inventory, or on the right of Charts 1-16, with the most undesirable, erratic, eccentric and defective traits at the bottom of the Inventory or on the extreme right of the diagrams.

TABLE 1

INVENTORY OF TRAITS AND ATTITUDES

	A	Father, mother, spouse		B	Child, sibling	
Symb*	1	symbiotic (early)	1	same as in A		
	2	symbiotic (prolonged)	2	same as in A		
	3	symbiotic (continued)	3	same as in A		
I	4	giving	4	responsive	well adjusted	
	5	supportive	5	pliable		
	6	affectionate	6	same as in A		
II	7	cooperative	7	companionable		
	8	permissive	8	cooperative		
	9	indulgent	9	docile		
III	10	protective	10	independent		
	11	domineering controling	11	socially aggressive		
	12	authoritarian	12	self-assertive		
IV	13	competitive	13	same as in A	poorly adjusted, *e. g.*, neurosis	
	14	rejecting, punitive	14	defiant, rebellious		
	15	hostile aggressive	15	same as in A		
V	16	clinging	16	same as in A		
	17	dependent	17	same as in A		
	18	demanding	18	same as in A		
VI	19	rigid	19	same as in A		
	20	distrustful	20	same as in A		
	21	inhibited	21	same as in A		
VII	22	cold	22	fearful	breakdown or failure, *e. g.*, psychosis	
	23	withdrawn	23	same as in A		
	24	autistic	24	same as in A		
VIII	25	passive	25	same as in A		
	26	submissive	26	same as in A		
	27	masochistic	27	same as in A		
IX	28	destructive	28	same as in A		
	29	sadistic	29	same as in A		
	30	castrating	30	explosive		
X	31	erratic	31	same as in A		
	32	eccentric	32	same as in A		
	33	defective	33	same as in A		
Brk*	34	absent	34	same as in A		
	35	incapacitated	35	same as in A		
	36	deceased	36	same as in A		

* Symb stands for symbiotic. Brk stands for broken pattern.

Our Inventory merely comprises a minimum number of such traits as can conceivably be used to describe interpersonal relationships in a given family setting. It does not claim to be comprehensive, nor does it represent an unbroken continuum in the mathematical sense. The traits included therein are merely designed to pinpoint certain variables in the broad range of behavioral configurations which come to our notice with some measure of frequency and some degree of consistency. It is true that the frequency and consistency of their occurrence cannot be expressed in strictly mathematical terms. However, since their impact upon the observer is much the same as is their impact upon the person involved, the observer's "protocol sentences" describing his own reactions can rightly claim the status of valid scientific statements. His observations are psychologically, if not statistically, significant(7).

It should be added at this point that the Inventory of Traits and Attitudes as shown in Table 1 has to be modified when we are dealing with children under 16. For instance, the triad designated as giving, supportive, affectionate, can better be described in the child as pliable, responsive, affectionate (Table 1B). The specification of attitudes observed in infants or in old age may require further modification of the inventory.

The application of the same Inventory to situations outside the family simply involves the extension of our inquiry to roles played in the community at large, *e.g.* at school, in work situations, therapy groups, etc.

RATING

The Inventory is drawn up in such a way that the psychologically trained observer should have no difficulty in applying its descriptive terms to persons known to him, through clinical interviews, psychotherapy, or social intercourse. Attention must be focussed on overt behavior and no attempt at clinical diagnoses or deeper psychodynamic evaluation should be made.

Exceptions to this rule are the frankly disturbed, overtly psychotic areas of behavior. For obvious reasons, in some subjects reference to "sadistic," "masochistic" or "defective" behavior cannot be avoided.

Keeping this principle in mind, the observer (or "judge") is asked the following question: *Which, in your opinion, is the Triad of Attitudes most characteristic, or most outstanding, in a given family pair, e.g., in the relationship of mother to child?* This most outstanding triad, designated I, II, etc. should be given the rank, or score of 5. Next question: *Which attitude ranks, in your estimate, as the next outstanding in their relationship?* This "next outstanding" triad of attitudes should be given the score of 4, followed in sequential order by the score of 3, 2 or 1 on the chart.

The inventory is so designed that information pertaining to more than 5 triads of traits can rarely be obtained. This is why the maximum score has arbitrarily been set at 5. On the other hand, in order to obtain a minimum of useful information the observer is asked to indicate his choice of not less than 2, or preferably 3, outstanding triads. Rating is thus based on the order of preference established by the observer. In this way the method lends itself to a quasi-mathematical treatment of rating responses.

This constitutes the first step in the use of the Inventory. It aims at eliciting a rough estimate of the subject's most outstanding cluster of attitudes in relation to a given family member. As a next step the observer is asked to specify which of the 3 traits included in the triad rated at 5 appears to him as the most characteristic in the subject's attitude in a particular family relationship. In such a close-up approach the observer may decide, with reference to triad III, for example, that the subject's most outstanding trait is protective, controlling or authoritarian, as the case may be. This trait may then be marked by the code number 10, 11 or 12 for further statistical processing of the data (see Table 1).

A third question the observer has to answer refers to clinical or sociological data which are not included in the Inventory of traits discussed so far. Extra space is alloted for such data in the 3 top and bottom lines of the inventory, and on the right and left margins, of charts 1-16, in as much as they supply factual information relevant to the proposed, final statistical evaluation of all the available findings. The letters *Sy* in the first left column indicate symbiotic patterns that exist, for instance, between mother and child.

Symbiosis is conceived here as an intimate sharing of attitudes between two persons linked together by bonds of identification or empathy and what I have described as enkinesis (the motor counterpart of empathy, 7a), or both. Symbiosis in this sense is a normal aspect of the child-parent relationship in the early infantile period, while its persistence in the child beyond the age of 2 or 3 may have pathological significance, as for example in childhood schizophrenia. In any case, the persistence of symbiosis in adult relationships has to be judged on its merits in each individual case.

Br, on the extreme right of the chart, is a reference to broken patterns, such as are due to the absence, total incapacity or death of one partner in the family pair. Scoring of the relevant piece of information depends on a consideration of age and the nature of the interpersonal relationship. For example a mother's absence for 3 months carries the maximum score of 3 in a child of one year old or less. In the age period of 2 to 6 years one year's absence of the significant adult is scored at 2.

Ideally, ratings should be obtained by two independent judges who are equally familiar with the subject of the study. If this condition exists and if preliminary understanding regarding the nomenclature has been reached between the two observers a high score of agreement can usually be found between them. A mathematical study of the level of agreement that can thus be attained is in progress.

How then does the observer pass his judgment, and how does he arrive at his score? I indicated that he arrives at it by the unconscious or intuitive computation of frequencies of behavioral configurations in a given social setting. In other words, here, as in T. Leary's investigations, the judge himself is the measuring instrument that supplies the data upon which the study is based. It is true that the validity of such a procedure is subject to questions. But the fact is that a person's attitudes or interpersonal reflexes as they manifest themselves in any social situation (*e.g.*, in the family setting), are derived in much the same way. The psychiatrist describing a wife as clinging and dependent merely re-experiences the presumable impact of such a wife upon her spouse. But while the husband's reaction is likely to be biased as a result of his personal involvement in the marriage situation, the psychiatrist has the advantage of his clinical detachment from the case which should in turn give him greater awareness of his own tendency to color his judgment by countertransference.

Put in other words, the interaction of family members is based on essentially the same principles of intuitive computation of the frequency of behavioral configurations as the trained observer's response to his subject. In both situations man is used as a measure of man, with the difference that in the clinical situation at least some of the flaws inherent in the measuring instruments have been corrected.

PRELIMINARY RESULTS

The present report is based on the study of 12 families (11 white, 1 negro). They were seen in part in private practice, in part in the outpatient department of Roosevelt Hospital in New York.[2] They include 3 childless couples and 9 families with 1-4 children. They are Protestant, Catholic and Jewish. The majority belong to the middle income bracket. Since their selection was solely guided by the availability of as many family members as possible for personal interviews and observation they can be considered a random sample of an urban population of mixed American and European stock.

The conclusions suggested by this material are supplemented by the present writer's experience with several hundred families seen in consultation with a family agency. Limitations of space make it necessary to confine our discussion to two representative families—one a "well-adjusted" or "healthy," the other a "problem" family, with one severely neurotic and one delinquent member.

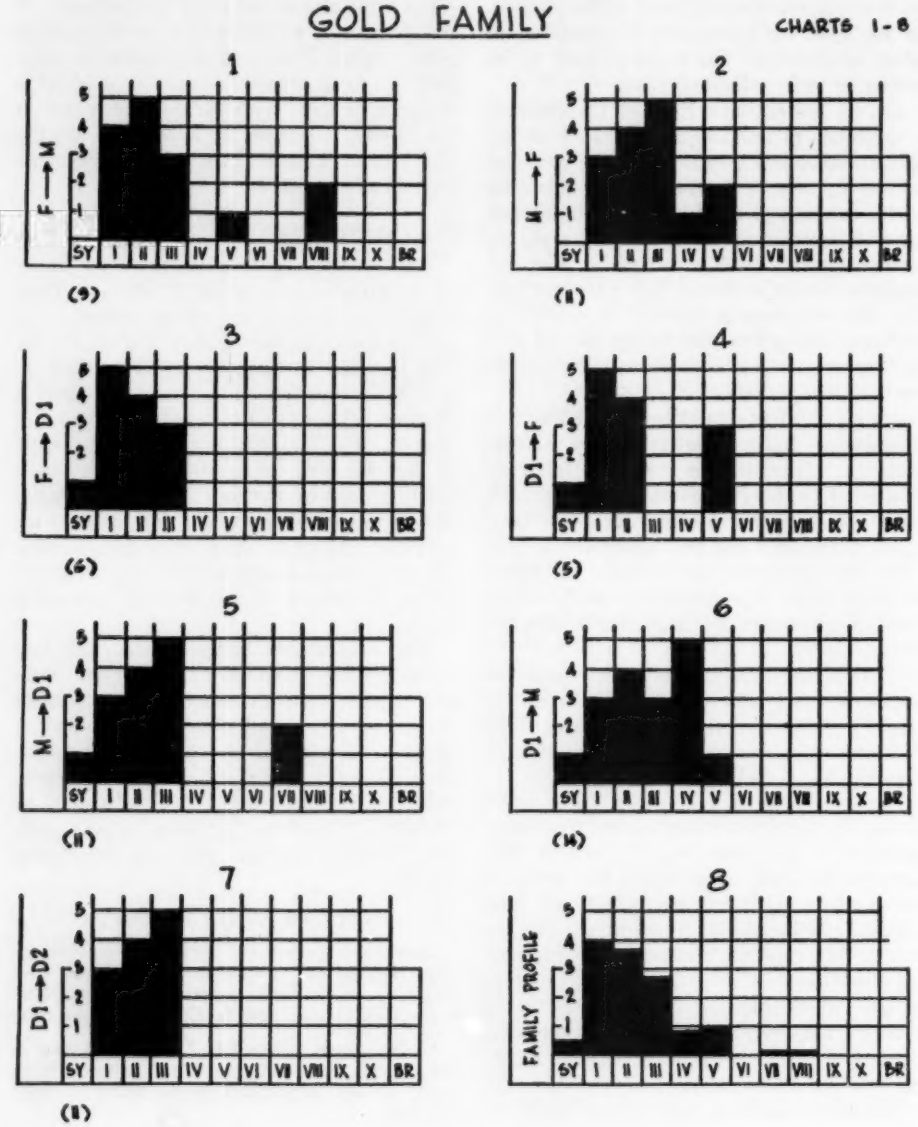
GUIDE TO FAMILY CHARTS

Charts 1-16 present the information obtained by using the inventory of traits and attitudes (see Table 1). Each chart represents ratings of attitudes exhibited by one family member in rela-

[2] I am greatly indebted to Mrs. A. Grieving of the Psychiatric Social Service of Roosevelt Hospital, for her cooperation in the study of these families.

tion to his or her opposite number in the family pair. F→M stands for father in relation to mother, and vice versa. F→D1 stands for father's attitude in relation to first daughter, etc. In Chart 1 the triad of attitudes designated II is rated as 5, that is, the traits "cooperative, permissive, indulgent" are deemed to be father's "most outstanding" attitudes in relation to mother. The number (7) printed under the baseline of the chart indicates that on closer scrutiny "cooperative" is the individual trait most characteristic of his attitude toward her (see Table 1).

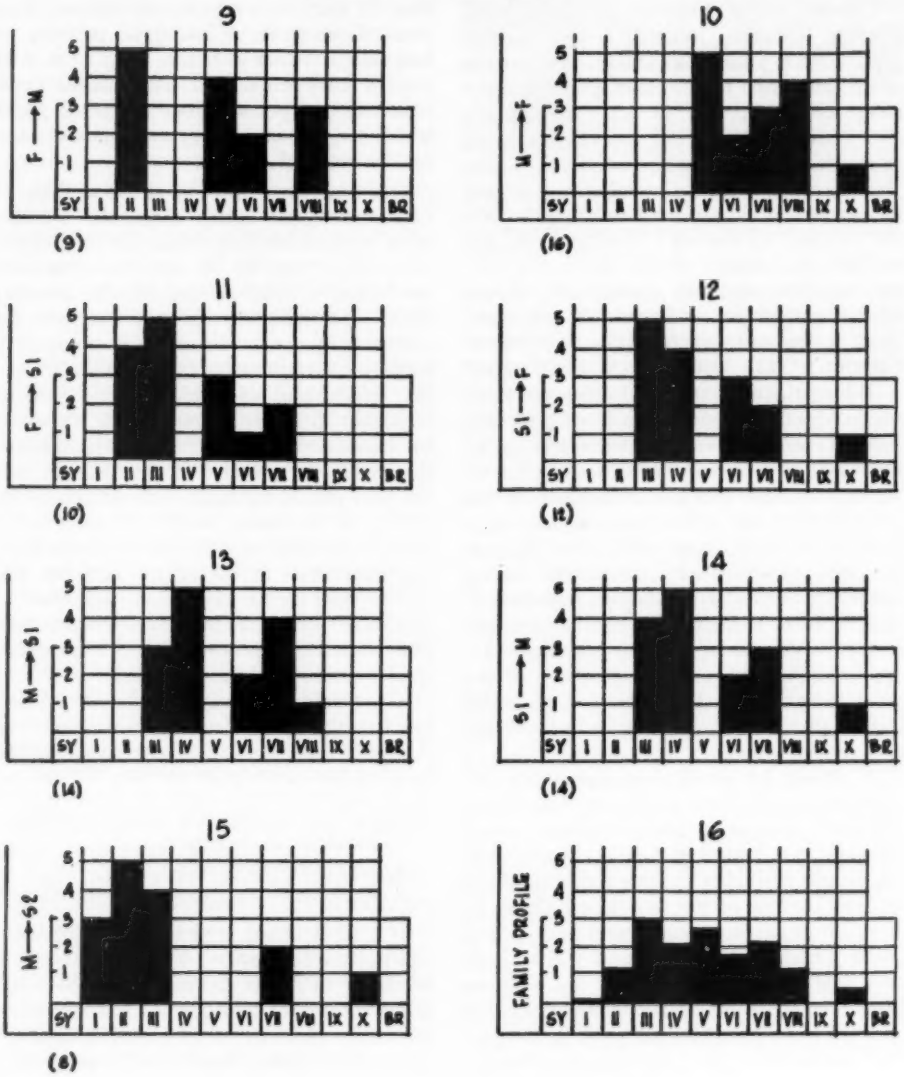
The Family Profile illustrated by chart 8 is a composite picture of family attitudes. It is derived from averaging all the 12 charts pertaining to the Gold family. This chart is heavily weighted on the "giving, supportive, affectionate" side of the scale. It is the picture of a "well-adjusted" family. Existing neurotic or otherwise maladjusted attitudes are submerged. Owing to the relative pau-



city of available information some charts contain ratings of 3 traits only. Also, some less significant aspects of the family constellation are omitted. The same procedure was followed in the Korn family. In this family scanty information was available regarding the younger son and only the mother's attitude towards him is included in the diagramatic representation of the family profile. This profile is heavily weighted in the neurotic and more severely disturbed area. On comparing the reciprocal attitudes of father and mother, a complementary pattern is discernible. Father is essentially cooperative, permissive, indulgent, with the emphasis on the latter trait. By contrast, mother is chiefly clinging, while at the same time passive, cold and withdrawn in her relation to him. Some of these contrasting traits are cancelled out in the resulting Family Profile. The total picture is one of fairly good family coherence, despite the existing inter-family tensions and incompatibilities.

KORN FAMILY

CHARTS 9-16



Our first example, the Gold Family (Chart 1-8), consists of 4 members: father aged 53, mother aged 49, and two daughters aged 20 and 22. As calculated on the basis of the formula n (n-1), the study comprises 4 (4-1), that is 12 relationships involving family pairs which can, in their totality, be represented in 12 charts. To state it at the outset, the Golds stand for the well adjusted family in which each member fulfills his or her respective role within the family group and, in effect, in the community at large.

Charts 1 and 2 represent the marital relationship between father(F) and mother (M); chart 3 the relationship of F to the older daughter (D 1), chart 4 of the older daughter to F, and so on. Accordingly each chart illustrates one aspect of a given interpersonal relationship or family pair. By "averaging" the total relationships plotted on our charts we arrive at the Family Profile (ch. 8). In a similar way, by averaging an individual family member's roles in relation to other members a composite picture of his personality traits can be obtained. Such a composite picture would represent a person's "Intrafamily Personality Profile."

Taking the next step, and using the traits marked by the code numbers from 4-33 (See Table 1) each respective relationship can be described more specifically in terms of a reciprocal *attitude pair*. For instance, in the Gold family, the relationship of the wife-husband pair is characterized by Cooperation and Control—with the accent on cooperation derived from father, and that of control from mother. The father's attitude towards both daughters is essentially cooperative and affectionate, while mother's attitude to them is chiefly controlling, which in turn provokes responses of mixed docility and rebellion on their part.

It should be noted once more that this particular part of our procedure focuses individually on one of the 30 traits contained in the 10 triads marked I to X. Thus focusing on one individual trait amounts, in effect, to a refinement of the scoring which, in its first step, was merely concerned with choices made among the 10 triads of traits. This has now to be supplemented by a closer choice between particular traits which are deemed to be most characteristic of the person concerned in his relationship to his opposite member in the family pair.

Using the most characteristic individual traits as our indices we arrive at a simple formula for the description of existing relationships within a family pair. A family pair can thus be characterized as giving—responsive, cooperative—docile, rejecting—hostile, sado-masochistic, destructive—exploitive, etc. In effect, we have to realize that, as a general rule, attitudes appear in pairs, not singly. They occur as compounds, not as free atoms of social behavior, as it were. More stable than T. Leary's interpersonal reflexes, they result from more or less fixed patterns of interaction within a family pair. Yet it is readily understood that the possible combinations and permutations of the 30 traits which may go into such compounds amount to astronomical figures.

Our next step brings us closer to the goal of a sociometric family diagnosis. By singling out and labelling of the clinically dominant family pair in the way just described we arrive at the picture of the existing family constellation. In our example the Gold family can be described in terms of a cooperative-responsive constellation in the first place, and of a controlling-rebellious constellation in the second. It is the study of such clearly defined family constellations that holds the promise of new insight into the part played by family interaction in the origin of neurosis, mental illness, delinquency and their apparent transmission from one generation to the other. Not less important will be the clues that may come to light as to environmental factors which tend to counteract the perpetuation of such trends in successive filial generations.

A preliminary survey of our material suggests that family constellations as they were described above can be grouped and divided in 4 major patterns as follows:

1. Patterns of sharing and cooperation
2. Patterns of contagion
3. Complementary patterns
4. Patterns of resistence and rebellion.

It goes without saying that patterns of sharing and cooperation derive from the concordance of traits belonging in the well-adjusted area of interaction. It is a reasonable assumption that they form the basis for the perpetuation of healthy personality traits

in the family, and in our culture at large, at least to the extent to which these traits are formed in response to factors provided by our social environment.

In contrast, patterns of contagion, such as hostile, rejecting, sado-masochistic or other disturbed traits and attitudes, derive from a concordance in the area of poorly adjusted family interaction. These tend toward the perpetuation of disturbed patterns within a given family and thereby from one generation to another. Despite differences in their bio-social significance both patterns of sharing and patterns of contagion have thus one thing in common: they are conducive to the perpetuation of either desirable or undesirable patterns in the community.

Complementary patterns may or may not constitute a break in such a trend. They bring the factor of change into the more or less random distribution of fixed or fluctuating attitudes, desirable and undesirable, in a given society. At the same time they play an important part in binding together an otherwise poorly balanced family structure.

Patterns of resistance and rebellion tend to counteract the ominous trend towards perpetuation of neurotic or otherwise disturbed patterns. For instance, the two daughters in the Gold family show some evidence of rebellion in relation to their mother (Ch. 6). This runs counter to the general atmosphere of cooperation and responsiveness characteristic of the family, though it does not in any appreciable way threaten its stability. In many cases, however, patterns of resistance and rebellion become a major problem to the coherence of the family structure. They confront us with the picture of strife and dissension. They become the breeding ground for individual behavior disorders; for various delinquent patterns and political radicalism. They may ultimately lead to the breakdown of social, cultural and religious values within the society.

There is, however, also another side of this picture. Such patterns, despite their essentially destructive impact, may carry within themselves the seeds of change for the better. Rebellion and resistance do help to break the trend towards transmission, by contagion or complementarity, of neurotic or otherwise disturbed attitudes and personality traits from one generation to the other. Resistance and rebellion may thus pave the way for the emergence of new patterns in the history of mankind. They are comparable to the emergence of mutations on the psychological plane.

This point can be illustrated by a brief glance at the Korn family (9-16).

This family consists of a weak, passive-submissive father, aged 46; a severely neurotic, obsessive compulsive mother, aged 42, and two sons aged 19 and 15. Max, the older son, rebelled against the control of his cold and rejecting mother. Following the birth of his younger brother he lost control of his anal sphincters and soiled himself up to the age of 11. At the age of 18 his rebellion exploded in violent delinquent behavior. On two occasions, after quarreling with his girl friend, he held up a cigar store. Leo, the younger son and his mother's favorite, is docile and pliable and seemingly safe from a career of delinquency. However, there are indications that he, in turn, is a likely candidate for a compulsion neurosis, thus perpetuating the maternal share of his family heritage.

The perpetuation of neurotic patterns from one generation to the next has been described as non-biological transmission(5) or as neurotic pseudo-heredity.[3] Viewed from our angle pseudo-heredity is in effect nothing else than the transmission by sharing, complementarity, or contagion of certain patterns of family interaction from one generation to the other.

One family included in the present study showed a high incidence of obsessive-compulsive neurotics in 3 successive generations. The prevailing pattern was that of a contagion and complementarity. At the same time there was a striking tendency of family members to seek out spouses who were themselves severely obsessive-compulsive personalities. Similar family pictures have been described by T. Lidz and his coworkers, by F. C. Thorne(8), by L. Szondi(9), and more recently by E. J. Cleveland and W. D. Longaker(10). They illustrate once more the difficulty of making a clear-cut distinction between the non-biological transmission, of pathological attitudes as described here, and the organic transmission of genetic traits.

[3] The term pseudo-heredity was introduced into American literature by Flanders Dunbar in her book: *Emotions and Bodily Changes*, New York: Columbia University Press, 1935.

It may be well to realize, however, that sharing and contagion are fortunately not confined to the perpetuation of neurotic or otherwise disturbed patterns of interaction. Our material indicates that the same principle applies with equal force to the sharing of healthy patterns, and thereby to the transmission of biologically and sociologically desirable trends in our society.

The systematic study of the traits and interaction patterns described here is thus of interest from both the clinical and sociocultural point of view. It throws light upon the part played by socio-environmental factors in the emergence of both healthy and pathological patterns of interaction and provides a useful diagnostic aid to guide our therapeutic course of action both with individual family members and with the family as a whole. More detailed results will be described in future publications. The present report in merely intended to draw an outline of our method and to make it available to other investigators who might be interested in using it with their material.

Summary

In summary it can be stated that our focus on attitudes and traits as the elementary units of interaction in the family, and the method of preferential rating outlined here, make a quantitative treatment of such interactions possible. Our findings suggest that attitudes do not occur singly but in pairs or in compounds of higher complexity. Based on this principle our study leads to the distinction of 4 major patterns of interaction: patterns of sharing, contagion, complementarity and resistance. The findings lend themselves to diagramatic representation, 1. of interaction in a family pair, 2. of the intrafamily personality profile, and 3. of a composite picture of family interaction, or family profile. Our material illustrates at the same time the part played by patterns of sharing and contagion in the non-biological or pseudo-hereditary transmission of traits and attitudes.

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SOME ANTECEDENT FACTORS IN ARMY PRISONERS

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The U. S. Army Provost Marshal Rehabilitation Center (formerly the U. S. Army Europe Rehabilitation Center) is an installation in which the corrective principle dominates the punitive. It was created for offenders sentenced to more than one and no more than 6 months, and is mostly composed of offenders sentenced for disciplinary reasons. Included also, however, are a few, who have committed petty larceny or who have been engaged primarily in aggressive behavior. Inebriation is connected with most offenses and ranges from tipsiness to severe intoxication.

It was believed that a study of certain factors in the background of the prisoners (called "trainees") at this Center might assist in determining, for example, on what basis decisions should be made to retain the men in the service and also give indications as to what antecedent factors should be considered in inducting men into the Army and in assigning them to an overseas command. Involved in the current study were 543 trainees representing 543 consecutive admissions to the Center. This population represented a fairly uniform distribution of origins throughout the United States and Puerto Rico. Negroes made up 25% of the population.

Specified information was collected on the background of the 543 trainees. It included the following: the number of previous civilian or military convictions, if any; the occupation of the breadwinner in the trainee's family; the stability of the trainee's family and the sibling position of the trainee in the family group; previous diagnoses of psychiatric or character disorders. The choice of these particular antecedent factors was made because it was believed that they would lead to the collection of objectively valid data and that they did not include criteria likely to be subject to bias on the part of the prisoner presenting the information or on the part of the interviewer. Therefore no attempt was made to elicit information from the prisoner as to whether, for example, he had experienced feelings of rejection. For the same reason no information was collected from the prisoners on the parental attitudes—whether overprotective, underprotective; confirmation or negation of the information we obtained from the prisoners was impossible to obtain from relatives and/or agencies in the United States. The only records available were the men's 201 files, containing data collected by the Army.

Table 1 shows the number of convictions, both military and civilian, of the trainees studied. The civilian offenses had been committed mostly before the trainees' entry into the service, although a few occurred during the intervals between enlistments. With negligible exceptions these acts were committed by individuals who either had entered the Army voluntarily or volunteered for the draft. There were 10 men who had joined the Army under the pressure of courts, probational authorities or the police. Of the total 543 prisoners, 510 (93.9%) were members of the Regular Army. The remaining 33 (6.1%), were draftees.

The position of the trainees among siblings in their families were as follows: 167

TABLE 1

Convictions, Military and Civilian (Traffic Violations Excluded)

Civilian convictions	Number of individuals	%	Military convictions	Number of individuals	%
2 or more	68	12.5	3 or more	202	37.2
1	100	18.2	2	245	45.2
0	375	49.3	1	96	27.6
Total	543	100.0		543	100.0

[1] Ypsilanti State Hosp., Ypsilanti, Mich.

TABLE 2

PARENTAL HOMES BROKEN PRIOR TO THE TESTEE'S AGE OF 15 YEARS

Cause of breakdown of home	Number of individuals	% of broken homes	% of total
Divorce	161	51.2	30.5
Father deceased	74	23.6	13.5
Mother deceased	59	18.3	10.5
Orphanage or unknown parentage	20	6.3	3.2
Home not disrupted at age of 15 years.	229	—	42.3
Total	543	57.7%	100.0%

(or 30.8%) were first or only siblings; 86 (16.2%) were second siblings; 25 (or 5.5%) were next to the last siblings; last siblings constituted 68 individuals (or 12.5%).

The stability of the parental home was tabulated on the basis of whether it had been actually overtly disrupted before the individual reached the age of 15 (see Table 2). (There had also been some disruptions of the homes of the trainees after this age.) No tabulation of so-called inadequate homes was attempted. Psychiatric examination disclosed, however, that the vast majority of the prisoners (at least 90%) came from homes which could be termed inadequate, either because of disruption, alcoholism, emotional coldness or inconsistency. As this estimate is based on the examiner's somewhat subjective opinions and is subject to bias, no tabulation of these criteria will follow. The total number of individuals from homes broken before these individuals had reached the age of 15 years numbered 314 (or 57.7%) of the total sample.

We have attempted to tabulate information on the professional or occupational background of the breadwinner in the family of the trainees studied when reliable information could be obtained. (See Table 3.) Of the 543 examined, we believe that reliable data were made available only by 325 of them.

The first 5 occupational groups listed in Table 3 are those which enjoy rather high social esteem and comparatively high income. This group supplied 19.2% of the delinquents of this study. The remainder came from families where the breadwinner belonged by occupation to the remaining 4 groups of lower income and lower social status.

TABLE 3

BACKGROUND OF TRAINEES ACCORDING TO OCCUPATION OF THE BREADWINNER IN THE FAMILY

Occupation of breadwinner	Number of individuals	%
Professionals	9	2.8
Semi-professionals	6	1.8
Proprietors Managers	22	6.8
Clerks Salesmen	12	3.7
Craftsmen	13	4.1
Factory workers	123	37.9
Domestic workers	15	4.4
Farm laborers	27	8.3
Other laborers	98	30.2
Total	325	100.0%

As readily as the above figures lend themselves to conjecture, one has to warn against unreasonable conclusions. As a corrective factor, we may assume that many of the individuals who join the Army do so for reasons of income—discounting all other reasons. In this sense the Army is composed largely, especially in the case of the lower grade enlisted men, of individuals who would fall in the low income occupational group, and this is the group which mainly concerns

TABLE 4

DIAGNOSTIC GROUPING AND RECOMMENDATIONS

Diagnostic grouping	Number of individuals	% of total	Recomm. for adm., separ.	% of total	% of diag. group.	Recomm. for retention
Psychiatric diagnosis other than character disorder	22	4.0	19	3.5	86.4	3
Character disorders	218	40.1	173	32.1	79.4	45
No diagnosis (borderline diagn. cases)	303	55.9	152	27.7	50.0	151
Total	543	100.0	344	63.3	—	199

us in this study. It is understandable that the Army does attract persons from the lower income groups, perhaps especially because of the higher social esteem the Army represents as compared with the groups from which they originate.

The average age of the trainees studied was 20.5 years, with the youngest 16 years old and the oldest 44 years of age. The average education of the groups was 9.7 years. The lowest number of formal years of schooling reported was 4 years; the highest was that of a graduate from college with two years of postgraduate work.

The entire sample was examined with the aim of prognosticating the further value of each in the Service. Certain diagnostic groupings were applied, according to current Army Regulations. Figures and percentages are shown in Table 4. Value of the man to the military service was seen from the point of view of service in a peacetime Army and under the specific conditions existing in the European Command.

Additional studies are necessary to evaluate the sociopsychological impact of serving in a foreign country with certain language barriers, a country only recently emerging from the hostility and resentment of World War II.

Conclusion

This study of 543 consecutive admissions to the USAREUR Rehabilitation Center shows a certain concentration of negative antecedent developmental factors in the background of these men. I do not consider that the figures in this paper are by any means decisive enough for definitive conclusions, but I believe that they indicate an open field for additional sociopsychological research into the problems of the Armed Services abroad in peacetime. Additional data, should they be collected, could aid in a reevaluation of induction procedures presently in use. Such data could help in the selection of suitable personnel for overseas tours of duty in peacetime. They might also add some new and valuable insights which would aid in the leadership training of lower echelon commanders.

A SINGULAR DISTORTION OF TEMPORAL ORIENTATION

MAX DAHL, M. D.[1]

Orientation for age is not entirely dependent upon the ability to reason arithmetically. There is a stronger psychological force than the mere result of a calculation when factors of personal identification are concerned.

It has been frequently observed that some patients will give the year of their birth and the current year correctly but will not give their correct age. It is this observation that is the subject of this study.

As early as 1911 Bleuler(1) pointed to a disorder of the process of association which he considered one of the fundamental and primary symptoms of schizophrenia. Consistant logical errors are meant by him to be a part of the process of "loosening of association". He describes the "double orientation" wherein the patient, on an intellectual level, is correctly oriented while at the same time and on the emotional level, he is deluded. This delusion takes precedence over the known facts.

English observers have found the same condition in patients with organic brain syndrome. Weinstein and Kahn(2) refer to it in a study of a woman over 70 who, in the early stages of recovery after head injury, insisted that she was 38. The authors do not, however, attempt to offer an explanation.

Zangwill(3) described two cases of Korsakoff's psychosis in which disorientation for age was remarkably persistent. His patients could state the year of birth correctly on request and had no doubt regarding the present year. Yet they invariably maintained that their age was less than arrived at by calculation, and this error resisted all attempts of correction. This tendency to maintain such disorientation in the face of contradictory evidence is an example of the entertainment of incompatible propositions in amnestic states. Zangwill(3) expresses the view that in these cases, the consistent retrograde amnesia can not by itself explain this phenomenon but that a motivational background must play an additional causative role. He points out that the denial of age in amnestic individuals has a protective function of allowing the maintainence of as much ego integrity as a damaged brain permits.

In 1946 Lunn and Trolle(4) and a few years later Strauss and McPhail(5) reported the same symptom occurring during the recovery period from electroshock. Clinical and electroencephalographic studies emphasized the similarity of psychological and biological changes in Korsakoff's and post-traumatic psychosis as compared with recovery of consciousness after ECT. A patchy amnesia and disorientation related to the effect of ECT on the diencephalon was produced.

Mowbray(6) found that after ECT, ability to count fingers re-occurred first followed soon by orientation for name. As might be expected some married women gave their maiden names before they could recall their married ones. About 22 minutes after shock, temporal orientation was resumed, first for the year of birth then for the present age but only 3 to 9 minutes later, for the current year. This clearly demonstrates that orientation for age stands out as an isolated fact, changing through time but maintained by rehearsal rather than by mathematical calculation and, therefore, can and does occur without knowledge of the current year. Before full mental recovery from the shock, men, as a rule, express their disorientation by saying that they do not know or do not remember their ages whereas women are likely to show disorientation by stating that they are years younger than they actually are. This is not surprising, as sensitivity to advancing age is a common human failing, particularly in women. Mowbray(5) like Zangwill(3) feels that, in terms of ego psychology, the individual is trying to maintain the greatest possible intactness of his ego.

It is of interest to note that a parallel observation can be made in studying disorientation in space. Paterson(7) studied the recovery of spatial orientation after head injury. He drew attention to cases

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where correct and incorrect ideas of locality may exist side by side, ideas that are reconciled only through bizarre rationalization, as for instance, by stating that one is in one place "by the map" but somewhere quite different "actually".

In order to study the frequency of occurrence as well as its possible significance as a diagnostic and prognostic sign, we examined 500 female patients chosen at random from the same service of Hudson River State Hospital. All were chronically ill mental patients whose diagnoses were as follows :

Alcoholic deterioration	2
Psychosis with psychopathic personality	7
Psychosis due to convulsive disorder	11
Psychosis with cerebral arteriosclerosis	8
General Paresis	39
Involutional Psychosis	23
Manic-Depressive Psychosis	28
Dementia Praecox	382
Total	500

They were asked their age, their year of birth, and the current year. One hundred and twenty-one answered correctly and were dismissed from this study. Three hundred and twenty-seven were excluded who were uncommunicative or confused or irrelevant in answering.

Fifty-two patients, however, showed the symptom under discussion and then were asked :

1. To give the name of the president of the U. S. A.
2. To name a few vegetables
3. To state what happens to ice when it melts

Only those showing unimpaired judgment of impersonal matters by correctly answering questions 2 and 3 were made subjects for further study.

The results are tabulated as follows :

TABLE 1

	Mean $(\overline{X})$	Standard Deviation (s)
Real age	50.3	9.9
Claimed age	36.8	10.2

Definition : Mean $(\overline{x})$ denotes the arithmetical average.

Standard deviation (s) denotes the pattern of dispersion and therefore depends on the variability of the data. At least 2/3 of the cases are contained within plus or minus one standard deviation of the mean.

The given age was then compared with the age at which the mental illness began. Whenever such an age was not found in the record, the age of first hospitalization served as substitute. The result of this comparison is tabulated as follows :

TABLE 2

	Mean	Standard Deviation
Claimed age	36.8	10.4
Age at beginning of illness	31.6	8.7
Time needed for regression (a-b)	5.2	5.4

Lanzkron(10) found similar results in an examination of 50 male patients showing the same distortion of temporal orientation. In his study the mean age is 47.54 years with a standard deviation of 9.96 years. The mean age claimed by his patients was 26.04 years with a standard deviation of 6.90. He finds the difference between a real and stated age to have a mean of 22.32 with a standard deviation 10.42 and this to be a reflection on the chronicity of the illness. He found a mean span of 7 months between the age at hospitalization and the claimed age and concludes that for the temporal orientation to become arrested, it takes less than a year after the illness is sufficiently severe to warrant hospitalization and that usually hospitalization takes place rather late in the course of the disease.

Our observations as shown above are similar and the pooled experience lends additional weight to our findings. The average time needed for regression was 5.2 years but when it was broken down by the diagnostic types of schizophrenia, we saw that the mean for the hebephrenic type was 2.0 years ; the catatonic type 2.7 years ; the paranoid type was 8.3 years.

This result was expected in view of the well known clinical observation that para-

noids preserve the integrity of their personality considerably longer than other schizophrenic types, particularly hebephrenics.

This phenomenon occurred only in schizophrenics. Roughly, 14% of the examined schizophrenic patients showed it. A few patients, still under a different diagnosis, showed after a long period of hospitalization in retrospect the effect of a malignant schizophrenic process. All presented a higher or lower degree of regression. None of the patients added to their age, all deducted from it. The discrepancy which was often realized by them when calculation was made on paper remained frequently unexplained, sometimes remarked upon but always unshakable. We heard comments like: "I was born again", "The count stopped officially", "I can't tell you—that's my age", "They have a joke on the calendar", "The church computes time differently", "The calendar fools fools!", "There are 57 calendar years but I go by the modern method".

In conformity with this distortion, some patients would give the name of the contemporary president of the U. S. A. as Truman, Wilson, Coolidge or F. D. Roosevelt. When pressed further, one patient stated that she knows the name of Eisenhower but, "That is the name of the next president".

One patient who showed very little intellectual deterioration and who was cooperative enough, was presented with a chart of the years from her birth to the present year set out in chronological sequence of 5 year intervals. She was then asked to write her ages against the years on the chart. She did this properly for a few lines but then became startled and refused to complete her task, saying that she is not as old as the figures would indicate. This same observation has been made by Zangwill(3).

To explain this phenomenon in the individual patient dynamically would require a longitudinal study starting from infancy patterns of dealing with anxiety and following through the life history up to the present delusional and regressed adjustment. Such a study might well reveal a dynamic desire to deny reality, to erase from one's life the years of mental struggle and resulting maladjustment. This is not attempted in this investigation.

Observing that so many patients have this one symptom in common, however different their personalities, their backgrounds, and their types of schizophrenic reaction, one might look into an approach that is different from the usual dynamic one which predominantly studies what is specific for the *individual* case. The psychostructural frame of reference offered by Arieti(8) might explain this symptom on a more generalized basis. This approach emphasizes what patients have in common and tries to investigate the common psychological mechanisms they adopt. Von Domarus(9) has investigated the specific laws of logic in the schizophrenic. He found that schizophrenics do not follow the Aristotelian logic, the only one known to our society. They therefore appear to us very illogical, yet, what seems to us to be a form of irrationality may well be rational in a pre-Aristotelian, archaic form, a paleologic. He has formulated his principle as follows: whereas the normal person accepts identity only upon the basis of identical subjects, the paleologician accepts identity based upon identical predicates. It is the type of logic by which a small child may reason that describes two nuns as twins: 1. Nuns are dressed alike. 2. Twins are dressed alike. 3. Therefore, nuns are twins.

This example illustrates the identical predicates (dressed alike) by which subjects are identified by pre-Aristotelian logic. Thus, the apparent disorder of schizophrenic reasoning often becomes orderly when paleologic is applied. If a schizophrenic has the emotional need to believe something unacceptable by Aristotelian logic, and when anxiety arises if this need remains unsatisfied, the patient will regress and in this process of regression abandon Aristotelian logic for paleological thinking. In spite of being well able to subtract arithmetically the year of birth from the present year, he is unable to associate the result, as a normal person would do, by inferring "The difference is x years, therefore I am x years old". The unpleasant awareness of having spent so many years

in mental illness becomes unacceptable. The threat to the schizophrenic adjustment, faulty as it might be, causes anxiety with which the patient deals in using paleological thinking as for instance: "I was x years old when I was adjusted. I am adjusted now, therefore I am x years old". One patient stated, "I have lost so much time here, I am putting myself back. When I get out, I want to make up for those years". With these words she gave expression to an otherwise subconscious process.

The significance of this phenomenon is two-fold. In the first place it is of diagnostic value as it occurs in no other functional disorder but schizophrenia. In addition, it has prognostic value: inasmuch as its presence was found only in regressed patients, it is indicative of a poor prognosis.

Summary

The subject of this study is the observation that some patients will give the year of their birth and the current year correctly but are unable to give their correct age.

Pertinent literature is quoted. Five hundred female patients, chosen at random, were interviewed. The results were tabulated with means and standard deviations. It was found that this symptom occurs only in regressed schizophrenics and that it might be a diagnostic and prognostic aid. An attempt is made to interpret this phenomenon from the psycho-structural frame of reference.

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THE TEACHING OF FORENSIC PSYCHIATRY IN AMERICAN AND CANADIAN MEDICAL CENTERS [1]

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In a survey recently undertaken regarding the present state of the teaching of forensic psychiatry in American and Canadian medical schools and residencies supervised by these same departments of psychiatry, a general picture of this training is revealed and some preliminary findings can be stated. About two-thirds of the medical centers have replied (58 out of 87 contacted).

The main question in the minds of those replying is whether the subject is important enough for more time to be given in curricula already overcrowded and straining under the load of too much to teach and too little time available.

Information was sought in two categories, teaching in the medical school and teaching in the psychiatric residency.

UNDERGRADUATE:

A brief summary of the findings for undergraduate training shows:

1. About two-thirds give or plan to give at least one formal lecture in forensic psychiatry at some time during the 4 years of medical school. These range from one to 4 lectures, almost always given in only one year, not throughout the years of training (in almost all except the two-year schools this is done in the clinical years). These lectures are often part of a course in legal medicine.

The subjects of these lectures vary greatly, e.g. commitment proceedings (the most frequent lecture) criminal responsibility, testamentary capacity, court mechanics, etc.

2. Less than one-half have seminars and/or conferences in forensic psychiatry, the amount of time varying from one to 18 hours per year.

The subjects of these conferences/seminars mainly center around specific cases and, more or less by chance, may cover commitment proceedings, patients' rights, wills and contracts, etc.

3. Most schools (about three-quarters) have practical work, from watching court procedures to more involvement via case workups. Students at one school see and discuss in conference patients already committed to a State hospital prior to trial for a major offense.

Students are primarily observers; in four-fifths of the centers where practical work is offered, this consists of watching commitment proceedings, less often (one-third) of observing in other courts, (e.g. Juvenile). As with the lectures, this work occurs primarily in the clinical years.

POSTGRADUATE:

On reviewing the residency programs, one finds:

1. Almost two-thirds give or plan to give lectures during any or all years of training, from 2 to 15 per year (one center giving 16 hours every third year; one 10 to 15 hours each year). The subjects are varied, covering commitment proceedings, criminal responsibility, wills, contracts, expert testimony, perversions, etc.

2. Over two-thirds have conferences/seminars, the amount of time ranging from 3 to 16 hours per year. These are concerned mainly with legal aspects of individual cases. At one center a seminar is held on Davidson's *"Forensic Psychiatry."*

3. An overwhelming number of residencies have or plan to have practical work in forensic psychiatry, ranging from observation to participation (with participation by far the greater). A little less than four-fifths of those with practical work are involved in commitment proceedings; one-half are involved in other courts than those related to commitment; a very few include some work in prisons (e.g. "Almost all of our residents rotate through San Quentin prison for 3 months . ."), and prison wards

[1] Delivered at a meeting of the Medical Correctional Association, Los Angeles, Aug. 28-29, 1956.

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of general hospitals (e.g. "Special Problems seen in our Prison Ward Services at Bellevue Hospital").

Over one-half give consultative service to courts; a little less than one-half give some consultative service to probation departments; one-third are intimately involved (not just observers) in commitment proceedings; one-third provide testimony in civil and/or criminal courts.

It is interesting to note how departments feel about the adequacy of their teaching in forensic psychiatry. Only one-quarter felt that their undergraduate teaching was adequate. Of the three-quarters who did not, all felt that there was not enough time in the curriculum, and almost all felt that there are more important and urgent aspects of psychiatry to be taught. Some said they are beginning to fill the gap in their training in legal psychiatry; others have plans to do so.

The expression of an inadequate program changes with postgraduate training. Here less than one-half of the centers felt the work needed improving, with one-sixth of the centers that do have a residency still in the planning and developmental stages of this program; one-sixth of those who felt the program was weak said there wasn't enough time; there were scattered expressions that there was a lack of field work or not enough liaison with law schools and bar associations.

Thus, most medical schools do not feel that they do as good a job as they could of teaching medical students forensic psychiatry, but that there are greater problems to worry about. In teaching residents in the same medical centers, more than one-half considered the job acceptable, and where it is not, there seems an attitude that this is too bad—but "the field does not attract psychiatrists, so authorities are few. Interest is at a low ebb."

Let me express some opinions and suggestions. I agree with those who feel that medical schools should train the student as if he were to become a general practitioner and leave to the postgraduate training the whole task of specialization. However, for the nonpsychiatrist, it is important that he know and have seen how commitment procedures work in his locale; understand what is meant by criminal responsibility, the term "insanity," and the McNaghten rules; learn the value of the psychiatrist to a given court; see how problems of the delinquent are handled; discuss the legal implications of perversion, etc. Such material can be covered by observing courts in action and additional discussion with an instructor and/or member of the court. (One might suspect that in almost all areas where medical schools are located, the legal authorities would be anxious and eager to help in this instruction); plus one or two hours of lectures. All of these are of value to a general practitioner, and would take up only 3 to 4 hours in a 4 year curriculum.

However, it is the postgraduate program that can be the most exciting and far reaching to the department of psychiatry. While it is true that much of the learning will come to the psychiatrist by experience after his residency, still this is no more reason for avoiding teaching legal psychiatry to residents than it would be to avoid exposing them to the patients who are involved with the law just because they will see these patients after residency.

Here is where some of the problems that have plagued psychiatrists and lawyers may be resolved. We psychiatrists have much of value to offer the law, both in the background to the making of the law and in the practice of the courts. We have often complained of the resistance of lawyers in using what we have to offer. To have them accept what we can offer is much the same problem as teaching the normal, healthy, resistant medical student. It can best be done not by lectures, statements aimed at battering down resistances, and quotations of authorities, but by having the people involved work together and watch each other in action. It is no wonder that most psychiatrists avoid the courts and find little appeal in forensic psychiatry. Too often, the legal aspects of psychiatry mean trouble for the psychiatrist, and it is easier to ignore and avoid this than to remedy it. But the remedy is long overdue. So long as our instructors are not interested, the residents will be bored, which in turn will hardly inspire the instructors.

Using individual cases as a starting point

for discussion is a popular and successful method of teaching throughout the country, but it may happen that in this way some residents will chance to miss important aspects of the subjects. Therefore, the case material should be augmented by some of the below (in the best of all possible worlds, these could be opportunities for self-education, rather than assignments):

A. A visit to a State or Federal penitentiary.

B. A visit to a city or county jail.

C. Affiliation for an extended period to prisons that do have psychiatric facilities. (Maybe it is in part the responsibility of the medical center to move psychiatry into the prisons where it has not yet found its place).

D. At least a visit to the local facility for handling delinquents and, if possible, an affiliation for an extended period.

E. If commitment proceedings occur in hospitals other than the ones associated with the residency and do not occur in the residency hospital(s), the residents should still have an opportunity to observe these proceedings extensively. Where the residency uses hospitals where such proceedings occur, the residents should be used actively in these proceedings.

F. Consultations to courts, probation departments, etc.

G. One "orientation" lecture; responsibility, competency, wills and contracts, expert witness and some history of the problems of forensic psychiatry could be covered in a lecture of one to one and a half hours.

A most interesting pilot project, a forensic clinic, is being established by the McGill department of psychiatry, with the following aims(1):

A. To provide psychiatric assistance to judges who deal with offenders in whom relevant psychiatric factors are considered to be important factors of the offenses for which the offender is brought to the tribunal.

B. To provide psychiatric assistance to a selected number of prisoners when discharged from prison at the end of their sentences, or when on parole, or when on probation, and

C. To provide psychiatric assistance to agencies that work in the field of rehabilitation of prisoners. This should be a service of consultation.

As the primary aim of this clinic is to provide treatment when necessary, we feel that the psychiatric service given to the court should be a pre-sentence report to the judge; our clinic should not serve as expert witness during a trial. It is planned that this clinic work as closely as possible with the probation service, but we feel that it should not act as a probation service, for a psychiatric service cannot be at the same time therapeutic and custodial. The clinic will be dealing with voluntary patients.

"The Psychiatrist; His Training and Development"(2) mentions one difficulty in postgraduate training—

It is impossible to outline a specific teaching program for residency training in legal psychiatry because of the great variations in accessible facilities—psychiatric court clinics, psychiatric hospitals that are studying court cases, criminal divisions of State hospitals, and law school facilities. Moreover, local legal agencies also vary greatly in competence, interest, and ability to cooperate, and thus the aid that they can give in the instruction of residents is far from uniform.

However, the Conference does point out that "fuller use could be made of all types" (of facilities).

Here is a vicious circle. To make fuller use of the available facilities means a need for increased interest by the psychiatric department in those facilities, which interest depends upon smoother and more fruitful liaison with these facilities, while they in turn will not make any great effort to serve our training needs without sensing some interest from the people who run the residencies. There is little question that the courts and the law schools, the judges, the attorneys, and the bar associations would be pleased to be called in to plan and to help teach, giving a fresh view that would dispel the dullness of forensic psychiatry in some medical centers. Whatever the differences in quality of these local legal agencies may be from city to city, at their worst they are of higher quality than not to use them at all. Not only will this result in bringing this subject more into the foreground in the residency but the solutions to problems of sweeping

importance to society will be accelerated. The people who change the laws will learn more of our psychiatric knowledge from meeting with us than in the impersonal situations of the lecture they may unwillingly attend, or from the book they read, or from the distorted ways that the public at times learns about psychiatry. If we cannot manage to make better contact with them for lack of time or lack of enthusiasm, then we should not complain that the lawyers do not understand us psychiatrists.

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FATALITIES IN PATIENTS RECEIVING CHLORPROMAZINE AND RESERPINE DURING 1956-1957 AT PILGRIM STATE HOSPITAL[1]

M. ZLOTLOW, M.D. AND A. E. PAGANINI, M.D.[2]

In the last five years since the use of ataraxics, there exists a rich literature concerning the side effects, therapeutic effects and complications. However, some contributions have recently appeared in the literature showing fatalities and untoward reactions while patients are receiving tranquilizers.

REVIEW OF THE LITERATURE

Wardel, D. W.(1) reports 3 deaths in the course of reserpine therapy and states, "We are certainly unable to attribute the above deaths and illnesses, with any degree of certainty, directly to the tranquilizing agents" but raises the question as to "whether these agents may have a specific effect on the respiratory process conducive to the development of pneumonia and possibly diminishing the usual defensive alarm reaction to blocking of the airway."

Feldman, P. E.(2) reports one case (a post-lobotomy) of death in the course of therapy with a phenothiazine derivative and states, "The case history suggests that there was a catastrophic failure of the airway defenses to respond to the presence of foreign material in the trachea" and it was the author's conviction that the patient did not have a seizure at the death but rather "a failure of the cough reflex."

Hollister, L. E.(3) reported all the unexpected asphyxial deaths at his 1,325 bed hospital over the past 6½ years in a complete sample. He states that "this type of death (asphyxia) has been no more common during the period of tranquilizing drug therapy than before. What is particularly noteworthy is the high incidence of asphyxial death in patients with brain damage, particularly those with convulsive disorders. Such an association of brain damage and unexpected asphyxial death was clearly present even before tranquilizing drugs were used."

Similar episodes of untoward reactions to the drugs and several fatalities seen by the authors prompted a study here at Pilgrim State Hospital, which has 14,000 patients, about 1,100 deaths per year and some 350 autopsies per year. The two years, 1956 and 1957, were the peak years for the use of ataraxics and therefore were chosen for the present study; but, the autopsy records for 1953 and 1954 were also studied for comparison. In 1956 and 1957, about 7,500 patients were receiving tranquilizers. In order to investigate the possibility of some connection between the drugs and fatalities, 25 autopsied patients who were on tranquilizing drugs at the time of death were studied in detail.

An analysis of the records of these 25 patients shows that 12 died suddenly of coronary artery disease. Six patients died with infectious lung disease (2 bronchopneumonia, virus pneumonia, tobar pneumonia, influenzal pneumonia and acute miliary tuberculosis of the lungs). These 18 deaths apparently need no special review because, in our opinion, they appear to be the "natural" sudden deaths of patients of any age group in any situation or study.

Three patients died with acute peritonitis due to ruptured peptic ulcer. These cases gain importance because there has appeared no reference in the literature to patients who died of this condition while receiving ataraxics. Whether ataraxics have a specific effect on the incidence of rupture of "silent ulcers" is in the realm of speculation, and in view of our findings further consideration and study of this problem is certainly warranted.

Case 1. W. M. Male, age 32. Admitted Jan. 20, 1953. Diagnosis, dementia praecox, paranoid. He was suspicious, showed marked anxiety and tension, was rambling, somewhat seclusive and once attempted suicide. He was never considered well enough for release on convalescent status. The patient received re-

[1] The authors wish to express their appreciation to Dr. H. J. Worthing, Senior Director of Pilgrim State Hospital, Dr. H. Barahal, Associate Director, Dr. E. Gray, Director of Clinical Laboratories and the Statistical Department of Pilgrim State Hospital.

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serpine followed by chlorpromazine and was receiving chlorpromazine at the time of death, May 9, 1957. The patient suddenly developed an acute discomfort, became pale and clammy, abdomen tender, temperature of 102.2. He died suddenly and autopsy showed an acute peritonitis due to a perforated duodenal ulcer. There was no history of peptic ulcer, nor was there any symptomatology indicative of an ulcer before death.

Case 2. C. C. Male, age 22. Admitted May 12, 1927. Diagnosis, dementia praecox, catatonic. He was sporadically overactive, destructive to clothing, hallucinated, mute and negativistic. He was never considered well enough for release on convalescent status. On Jan. 14, 1957, the patient was placed on reserpine and on Jan. 17, 1957, he died suddenly, having voiced no previous complaints. Autopsy revealed acute peritonitis due to a perforated duodenal ulcer.

Case 3. A. P. Female, age 27. Admitted Feb. 7, 1950. Diagnosis dementia praecox, hebephrenic. She was impulsively assaultive, hallucinated and received a prefrontal lobotomy in 1952. Following lobotomy the patient had convulsive seizures sporadically and received anti-convulsants. She was placed on chlorpromazine from March 1955 until May 1955 and then on reserpine. She was receiving a combination of reserpine and chlorpromazine as well as anti-convulsants until Oct. 1956. At the time of death, the patient was receiving dilantin and chlorpromazine. On Dec. 6, 1956, she suddenly complained of a pain in the abdomen following a bowel movement. She started to vomit and died suddenly. At autopsy the finding was perforated gastric ulcer, asphyxia due to aspiration of stomach contents.

The remaining 4 patients died suddenly with asphyxia. These cases deserve special study in view of the similar sudden deaths reported by others and the various interpretations put on this catastrophe. It is to be noted that 3 of these were post-lobotomy patients who had a history of convulsive seizures and one was an epileptic.

Case 4. P. G. Male, age 17. Admitted Feb. 5, 1949. Diagnosis, psychosis with mental deficiency. He had a history of almost complete inability to learn even the simplest tasks, becoming restless and extremely fearful. Before and after admission, the patient was impulsively assaultive, destructive and masturbated to excess. He showed slight improvement in behavior after prefrontal lobotomy done Nov. 1952, but in Jan. 1954, he went into a status epilepticus never having had a seizure before. He was subsequently placed on anti-convulsant medication and on April 14, 1955, was placed on chlorpromazine and reserpine but showed no behavioral improvement. In Dec. 1955, patient went into a status epilepticus. Up until the time of his sudden death, he was still on anti-convulsants, reserpine and chlorpromazine. During the night of May 28, 1957, the patient died suddenly due to asphyxia, apparently having had a convulsive seizure. Autopsy findings were essentially negative and failed to reveal any specific cause of death.

Case 5. M. C. Female, age 26. Admitted Sept. 29, 1930. Diagnosis, dementia praecox, catatonic. She oscillated between periods of severe excitement and severe apathy and stupor; was hallucinated, confused, impulsively assaultive and out of contact. In June 1952, she received a prefrontal lobotomy without any change in her mental condition except for the development of infrequent grand mal convulsions. In December 1955, she was placed on chlorpromazine in addition to anti-convulsants followed by reserpine. On July 9, 1956, the patient suddenly died, while on reserpine and anti-convulsants. Autopsy findings confirmed the diagnosis as asphyxia due to aspiration of stomach contents in an epileptiform seizure.

Case 6. F. S. Female, age 24. Admitted Sept. 22, 1955. Diagnosis, dementia praecox, hebephrenic. She also had a birth injury resulting in leftsided spastic hemiplegia and had a history of infrequent grand mal convulsions. She was tense, silly, childish, auditorily hallucinated; was placed on reserpine Nov. 1955 in addition to anti-convulsants. May 8, 1956, she was found dead in bed with her head buried in a pillow. She apparently had a seizure at the time of death. After autopsy, the diagnosis of asphyxia due to convulsive seizures and acute left heart failure was made.

Case 7. H. E. Male, age 23. Admitted Feb. 9, 1939. Diagnosis, dementia praecox, catatonic. He was noisy, disturbed, destructive, homosexual, hallucinated and seclusive. He received a prefrontal lobotomy Jan. 1950 and following this, remained essentially unchanged. He was placed on reserpine May 1955, followed by chlorpromazine, on which he remained until his death. No epileptiform seizures were reported. On March 18, 1956, while in the dining room, the patie suddenly turned blue, fell off the chair and died with his mouth full of food. Autopsy findings confirmed the diagnosis of asphyxia due to foreign body (food) in the trachea.

Discussion

Other somatic therapies have encountered fatalities. For example, Impastato and Almansi found 0.8% fatalities in their survey of the literature on ECT. Kolb and Vogel found a death rate of 0.06% for ECT, 0.1% for metrazol and 0.6% for insulin. It is not our purpose here to set up a statistical study of the percent fatalities for patients receiving ataraxics. This study must necessarily wait for time and added experience but it is our impression that the fatality rate of patients on ataraxics is much lower than the above reported rates for other somatic therapies. These had as their most important fatal complications cardio-vascular disease and respiratory arrest whereas such complications do not appear to play an important role in fatalities of patients receiving ataraxics.

As mentioned in the review of the literature, two authors have attributed deaths from asphyxia as due to a failure of the cough reflex or to a specific effect on the respiratory system. Fogel's study with reserpine, however, failed to show an impairment of the swallowing mechanism when an objective test was used.

In our opinion, the 6 deaths of this study due to lung disease have not been the result of the lack of cough reflex or any specific effect on the respiratory system. Rather, they can be ascribed to the same unknown causes and factors involved in the development of lung disease in any group of patients. In addition, it must be noted that there was no undue increase of upper respiratory infections or lung disease during the "flu" epidemic of September and October 1957 in those patients receiving tranquilizing drugs.

As noted, our 4 cases of asphyxia have all occurred in patients with lobotomy and/or convulsive disorders. We are inclined to attribute these asphyxial deaths as due to the development of a "masked fit" or an unnoticed epileptic convulsion with accompanying glottal spasm and tracheal aspiration of stomach contents. As noted by Hollister, "such association of brain damage and unexpected asphyxial deaths was clearly present even before tranquilizing drugs." Furthermore, it must be taken into consideration that the ataraxics are possibly epileptogenic in some cases. A recent study of this problem by the present authors has led us to the conclusion that chlorpromazine may be epileptogenic in some brain-damaged patients. This possibly is taken into consideration when we ascribe the asphyxial deaths as due to "masked fits" or unnoticed convulsions, rather than to a speculative lack of cough reflex or effect on the respiratory system.

We note that the classical picture of the syndrome of acute psychotic exhaustion with fatality is no longer seen. In the past, this hospital has had at least 25 deaths yearly due to this syndrome. This remarkable development deserves utmost emphasis.

Conclusions

1. Fatalities in the course of treatment with chlorpromazine and reserpine are much lower than with other somatic therapies.
2. Cardio-vascular and respiratory fatalities seen as the main complication with other somatic therapies are not as important complications in the course of treatment with these 2 drugs.
3. In patients with brain damage, asphyxia as the cause of death is due rather to a "masked fit" or "unnoticed convulsion" than to lack of cough reflex or some specific respiratory effect.
4. The development and appearance of ruptered peptic ulcer or a "silent" ulcer in patients receiving ataraxics should be further investigated.
5. The disappearance of the classical syndrome of "psychotic exhaustion" as a cause of death in the years of the use of ataraxics is remarkable and must be reemphasized.

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MENTAL SYMPTOMS IN CASES OF TUMOR OF TEMPORAL LOBE [1]

PAUL GAL, M. D.[2]

The diagnosis and the localization of intracranial tumors in the early stage is rarely easy even adopting the most modern diagnostic procedures. According to Martin(10) even the most experienced neurogolist, diagnosing exclusively on the basis of clinical symptoms, would succeed in the localizing diagnosis with only a 40% error. This error may well be caused among other factors by the establishment of the diagnosis, first and chiefly on the basis of neurological symptoms, while the mental state is only little considered. It is a justifiable desire of the brain surgeons that the neuropsychiatrist should also evaluate the mental state of the tumor-suspect patients, which would give more adequate help in diagnosis. The psychiatric literature, except for the monograph of Walter-Buel(22), is in this respect relatively poor and uncertain.

Our knowledge about the physiology and pathology of the temporal lobe recently made significant progress. This added knowledge is a great help in diagnosing temporal lobe tumors. But that the diagnostic difficulties have decreased only a little, has just been proved by Scarcelli's study (19) : 30% error out of 50 cases.

In the literature referring to the mental manifestations of temporal lobe tumors, we have found various data(20, 7, 12, 18, 9, 8, 5, 3). Therefore it would be desirable to review the cases of temporal lobe tumors in our institute. We shall not in this study deal with the deeper analysis of the psychopathologic process.

CASE MATERIAL AND DISCUSSION

Sixty-one cases, 37 male, 24 female, all verified by biopsy or autopsy. The youngest, aged 12 years, oldest 68, average age 44.6 years. Right side 31, left side 28, bilateral 2. The location of the tumors as follows : exclusively in the temporal lobe 35, temporo-frontal 4, temporo-frontal-parietal 7, temporo-central and basal ganglion 1, temporo-parietal 2, temporo-occipital 6, temporo-parieto-occipital 3 and temporo-basal (sphenoidal ridge) 3.

There were mental symptoms in 50 cases (82%). This number agrees with Schlesinger's (81%), is less than Massion-Vernori's (100%) Guidetti *et al's* (92%) and approximates other authors' data : Keschner *et al* (85.7%), Paillas *et al* (70%).

As initial symptoms before the neurological signs there were mental manifestations in 37 cases. These are essentially more than in the material of Guidetti *et al.* (43%) Keschner *et al.* (35%).

From the findings in this series we classified the mental symptoms as follows : 1. Fits, 2. Changes in personality, 3. Disorders of mood, 4. Schizoform psychosis, 5. Parietal mental symptoms, 6. Psychoorganic syndrome (*Bleuler*).

1. *Fits*: This type of fit is generally known after the description of Jackson (1888) as "uncinate fits." His short definition was : "This is a very elaborate or 'voluminous' mental state." Along with this mental state—in our material—olfactory hallucinations were present in 12 patients, 19.5%. The peculiar odors are described by patients as onion, sulphur, pipe smoke, nauseous, sour, stinking, or "tragic." Hallucinations of taste occurred in 2 patients. Both stated them to be unpleasant. Only one patient had visual hallucination as isolated phenomenon in "formed" manifestation. Acoustic hallucination occurred in one patient : "my wife's voice sounded strangely and from a great distance." Three patients had visual illusions (*déjà vu* experience), and 7 had a "dreamy state." The relatively small number of both manifestations may very well be explained by the statement of Kolodny (1928) : "dreamy state is a most complex phenomenon, which taxes greatly the self-analyzing ability of the patient and the observing power and experience of the physician." He supposed that dreamy states occur very frequently, but remain unrecognized by the patient and physician.

[1] From the National Neurosurgical Research Institute, Budapest, Hungary.

[2] Fairfield State Hospital, Newtown, Conn.

We did observe fits as automatism in one patient in the form of "oral petit mal" and in another one, of simple stereotyped movements.

Psychomotor equivalent occurred in 4 cases as ambulatory automatism. This type of psychomotor equivalent is a very rare manifestation. Rochow(17) found only one case out of 842, and we(2) found in the Neurological University Clinic of Debrecen, Hungary, 5 cases out of 20,000. The first patient out of our 4 had a syphilitic anamnesis, but at that time there was no sign of meningo-cerebral syphilis. The second was suffering from cerebral arteriosclerosis. Supposedly both factors could have played a role in producing the epileptic manifestation. The third patient's symptom was a post-epileptic mental clouding state. The short case history of the fourth patient was as follows :

Case 1.—A 36-year-old female had suffered fits for 14 years. She had been examined and treated at various hospitals several times. Her fits were of two kinds : 1. She had a peculiar experience, in that her strange surroundings seemed to be familiar as though she had known them for a long time. 2. She became suddenly confused and shouted : "I am roaring as a jackal." She started running aimlessly, went shopping in a store, where she helped herself to certain things. On such an occasion she became involved with the police and was transferred to a mental hospital. Because the encephalogram indicated a possible brain tumor, she was transferred to our institute. Angiogram showed a right temporal lobe tumor. Operation : partial removal of astrocytoma from the temporal lobe. For the 3 years following the operation she has had no fits.

Only one case displayed exclusively the mental manifestations of temporal epilepsy. In material of Gibbs and Gibbs(4) there were 21 out of 2,484.

Case 2.—A 40 year-old male. Fits with olfactory and visual hallucinations : grenade smell, corps stench, the objects and people are trembling, twisted, the heads become quadrangular. Ventriculography was negative 4 years ago. Since that time was talkative, unduly "sociable," cheerful, perfectly happy, jovial and ever smiling. He made friends easily and enjoyed joking. Recently had grand mals. Neurological finding : negative. Mental status : hypomanic, exhibits loves and hates, possibilities of excessive narcissism and frustrations therefrom. Polite, egocentric attitude. He minimizes his present symptoms. X-ray, spinal fluid, encephalogram, angiogram negative. Electroencephalogram : signs of organic lesion (tumor ?) in the right temporal area. Operation : resection of the anterior part of the right temporal lobe exposed a tumor lying deep in the temporal lobe.

That various symptoms can appear in the same patient in different manifestation before and after operation, is illustrated by the following case:

Case 3.—A 54-year-old male, complaining for 10 months of headache, impairment of memory, transitory states of mild mental clouding and automatism. Recently he had vomited frequently. Neurological examination and arteriography indicated a right temporal tumor. Operation : temporo-basal tumor was removed by suction because of the soft consistency of the tumor. The histological examination could not exactly establish the type of tumor. Weeks later, the patient at times found himself feeling at home on the ward. He believed that the hospital rented his home and transferred him and his fellow patients there. At another time his war experiences of 13 years previous were revived very vividly. While before the danger had not provoked the slightest dread at all, he became very anxious during such a seizure and experienced a bitter peculiar taste and smell. These symptoms disappeared only after months. At present, 4 years following the operation, he has successfully resumed his former occupation.

2. Changes in personality shows only one patient (Case 2).

3. The disorders of mood was observed by many authors (5, 21, 22) but figured a high percentage in Keschner's material : depression 20%, euphoria 21%. Papez(13) supposed that the temporal lobe and its connections play an important role in the emotional life. This supposition was later supported by many neurosurgical observations, clinicopathological data and animal experiments. In our material it did not occur as the main symptom. Depression occurred in 3 patients, anxiety in 2 and euphoria in 4 patients.

4. Schizoform psychosis was described by Walther-Buel and Guidetti in cases of temporal lobe tumor. We also observed in one case.

Case 4.—A 56-year-old female. Two years ago in connection with psychic trauma, delusions of persecution, olfactory, visual and acoustic hallucinations developed. She had peculiar experiences of mystical coloring. "I have had strange sensations of being pushed by somebody to go this way or that; my brain would distend; my thoughts were directed by something, my chest, brain and stomach would be torn by something." Her memory was severely impaired. Her fund of knowledge narrowed and she became inactive, idle, indifferent and emotionally flat. Pneumoencephalogram and electroencephalogram showed the signs of left temporal lobe tumor. Operation: removal of a temporo-basal meningeoma. Four days after operation she died. So it is difficult to tell, how greatly the psychic condition would be influenced by the removal of the tumor.

5. Parietal mental syndrome was observed in 10 cases. We found them not only in those cases where the tumor infiltrated the parietal lobe, but also in cases of reactive edema, or local disturbance of blood circulation, of local pressure, as neighboring syndrome. In such cases of course—5 altogether—after operation the parietal syndrome completely disappeared.

6. The psycho-organic syndrome (Bleuler) is manifested as a superficial or deeper disturbance of sensorium, difficulties in thinking and concentration, drowsiness, amnestic syndrome, lack of interest and apathy. This syndrome was found in 30 cases.

Summary and Conclusion

In the series of 61 temporal lobe tumors there were mental symptoms in 50 cases. As initial symptoms there were mental manifestations in 37 cases before any neurological signs appeared. The symptoms were are follows: 1. fits (hallucinations, visual illusions, dreamy state, automatism, psychomotor equivalent, temporal epilepsy), 2. changes in personality, 3. disorders of mood, 4. schizoform psychosis, 5. parietal mental symptoms, 6. psycho-organic syndrome.

We do not assume a definite mental syndrome of tumor of temporal lobe. We would only emphasize, that the psychic syndromes are never manifestations only of damage of a circumscribed part of the brain, but always as a damage of the function of the brain as a whole. From the clinical symptoms and their connections with the local lesions, one can only conclude that certain neuron groups play greater part in some or in specific brain activities. On the basis of literary data, of our own material and observations with electric stimulations of the cortex by Penfield and co-workers, we assume, that some type of hallucinations, déjà vu experiences, dreamy states, automatism, psychomotor equivalence, temporal epilepsy can be—with great probability—significant of temporal lobe lesions. Paying more attention to these symptoms and making greater use of the results of other examinations we will be enabled to make an earlier and more accurate diagnosis to establish the temporal lobe tumor.

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CLINICAL NOTES

SCHIZOPHRENIA IN RELATION TO BLOOD GROUPS ABO AND BLOOD TYPES Rh. D. AND MN

Third Study

C. R. LAFFERTY, M. D. AND WILMA J. KNOX, PH. D.[1]

In an effort to relate blood groups or a particular blood type to schizophrenia in our first and second studies(1), blood from white chronic schizophrenics in this hospital was compared with white male normals from this area. While the findings must be regarded as tentative, there was a significantly larger number of A positive types and fewer A negative types in the schizophrenic group than in the control group. The blood types M and N showed no significant statistical differences between the two groups.

For our third study, a comparison of blood groups and blood types of 599 chronic Negro schizophrenic males at the Tuskegee Veterans Hospital at Tuskegee, Alabama, was made with 500 consecutive adult Negro males from The Red Cross Blood Bank in Mobile, Alabama. Comparisons were made between the Negro schizophrenic group and the Negro control group for blood groups ABO and for blood types Rh positive and Rh negative. As in previous studies, the chi-square method was employed. The hypothesis that the Negro schizophrenic group and the Negro control group were from a *common* distribution of blood groups ABO could not be rejected ($p = .95$). However, these two groups were significantly different when blood typed with Rh.D. serum ($p = .001$) with the Negro schizophrenic group showing a larger proportion of Rh negative. The results were analyzed and compared with previous studies.

In the former studies it was reported that the white schizophrenic group had a significantly larger number of A positive types and fewer A negative types than the white control group. In the light of the findings of the third study, it would appear more meaningful to regard these differences between the two white groups as due to the Rh.D. typing rather than the blood group ABO. The comparison between the white schizophrenic and white control groups for ABO blood groups was not significant ($p = .30$), while the comparison between the two groups for the Rh.D. factor was significant ($p = .02$). Primarily, the Rh.D. factor rather than the blood group contributed to the variability between the two groups in each of the two experiments.

The Rh.D. factor operated differently in the Negro groups than in the white groups. In the Negro schizophrenic group a greater proportion of Rh negative was found than in the Negro control group. In the white schizophrenic group a greater proportion of Rh positive was found than in the white control group.

The two control groups, Negro and white, were compared as to blood groups and blood types. The hypothesis that the two control groups were from a *common* population could be rejected at the .001 level for both blood groups ABO and Rh.D. factor. These differences indicate that data from the Negro sample and the white sample cannot be appropriately combined.

Before significant determinations can be made, it is hoped that other psychiatric hospitals may become interested and make contributions in this field.

CONCLUSIONS

In comparing blood groupings and the Rh.D. factor in Negro schizophrenics with controls and with former findings, interesting differences were noted :

1. Significant differences were found between schizophrenic subjects and control subjects in two of the three studies, one

[1] From the Gulfport Division, VA Center, Biloxi, Miss.

of which used Negro subjects and the other, white subjects.

2. The Rh.D. factor rather than the blood group accounted for the differences between schizophrenics and normals in two of the studies.

3. The Rh.D. factor operated differently in the Negro groups than in the white groups. Negro schizophrenics showed a greater proportion of Rh negative, and white schizophrenics showed a greater proportion of Rh positive.

4. The Negro control group and the white control group had different distributions of the Rh.D. factor and of blood group characteristics; therefore, data from Negro and white subjects could not be appropriately combined.

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IS ADRENOCHROME PRESENT IN THE BLOOD?

STEPHEN SZARA, M. D. D. Sc., JULIUS AXELROD, PH. D. AND SEYMOUR PERLIN, M. D.[1]

Recently, Hoffer(1) has reported the presence of adrenochrome in the plasma of normal subjects and its elevation after the administration of lysergic acid diethylamide (LSD_{25}). Adrenochrome has also been reported to produce schizophrenic-like symptoms in man(2). In view of these findings, adrenochrome could be interpreted as having a key role in the biochemical production of clinical states, which resemble schizophrenia. Therefore, a study on the estimation of adrenochrome in the blood of normal and schizophrenic subjects was undertaken.

METHODS AND RESULTS

Blood was drawn and immediately chilled to 0-5° C. and centrifuged in a refrigerated centrifuge. One ml. of plasma was transferred to a glass stoppered centrifuge tube containing 0.2 ml. of KH_2PO_4 solution (0.5 M) and 15 ml. of n-butanol[2]. All subsequent steps were carried out at room temperature. The tube was shaken and centrifuged. Ten ml. of the butanol layer was transferred to another tube containing 3 ml. of 0.1 N HCl and 25 ml. of ethyl acetate[2]. After shaking, the tubes were centrifuged and the upper layer removed by aspiration. A 0.5 ml. aliquot of the acid extract was transferred to a test tube and 0.5 ml. of NaOH-ascorbic acid mixture added(3). After 5 minutes the fluorescence was measured in an Aminco-Bowman spectrophotofluorometer at 525 mu after activation at 410 mu.

A known amount of adrenochrome[3] added to KH_2PO_4 solution and run through the above procedure served as a standard. All determinations were completed within two hours after drawing of blood. All values were corrected for small reagent blank. As little as 20 micrograms of adrenochrome per liter of plasma could be estimated by this procedure.

Plasma levels of adrenochrome were measured in 17 subjects of whom 6 were "normal-control" volunteers and 11 acute and chronic schizophrenic patients. Among the schizophrenic subjects 3 were actively hallucinating while 5 others had a recent history of hallucinations.

Less than 20 micrograms per liter of a fluorescent material was found in the plasma of both the normal and schizophrenic subjects. This material did not have the characteristic activation and fluorescent spectra of synthetic adrenochrome. On the other hand, adrenochrome added to plasma and treated by the procedure described above had fluorescent characteristics identical with those of untreated adrenochrome.

[1] From the Laboratory of Clinical Science, National Institute of Mental Health, Bethesda 14, Md.

[2] All solvents were successively washed with one fifth volume 1N NaOH, 1N HCl and three times with water.

[3] Crystalline adrenochrome was kindly supplied by Dr. A. Hoffer, University Hospital, Saskatoon, Sask.

DISCUSSION

Green and Richter(4) found that cyctochrome oxidase can oxidize epinephrine to adrenochrome *in vitro*, but no evidence for the formation of adrenochrome *in vivo* has been demonstrated. Schayer, *et al.*(5) using radioactive epinephrine and adrenochrome found that adrenochrome is not a metabolite of epinephrine in the intact rat. In a recent report, Hoffer found adrenochrome to be present in plasma of human subjects to the extent of 50 micrograms per liter(1). An examination to establish the identity of the adrenochrome was not reported.

Using a sensitive and specific method for the estimation of adrenochrome we were unable to obtain evidence for the presence of adrenochrome in the plasma of normal and schizophrenic subjects. The minute amount of fluorescent material in plasma extracts did not possess the characteristic fluorescence of authentic adrenochrome.

SUMMARY

1. A specific and sensitive method for the estimation of adrenochrome in plasma is described.

2. Adrenochrome could not be detected in the plasma of normal and schizophrenic subjects.

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HAZARDS IN TRANQUILIZING THE ELDERLY PATIENT

GENEVIEVE A. ARNESON, M.D.[1]

The author wishes to call attention to the hazards involved in the administration of tranquilizing drugs, notably the Rauwolfia and phenathiazine derivatives, to elderly people.

Case 1 : A 90-year-old lady with remarkably well preserved mental faculties was given a parenteral dose of a phenothiazine derivative after she had developed nausea secondary to digitalis administration. The patient became comatose, cyanotic and remained in shock with blood pressure at very low levels for 48 hours. After vigorous symptomatic treatment, she recovered "consciousness" but the hypotensive episode apparently had produced such severe, irreversible brain damage that she never regained her former mental capacity. She remained senile, childish, and unable to care for herself until her death a year later.

Over the past year we have seen a number of older patients suffer severe and often catastrophic cerebrovascular insufficiency syndromes following administration of the above drugs.

Case 2 : A 63 year old white male was admitted in coma to the neurology service of Charity Hospital, one week after being started on a Rauwolfia compound for "hypertension." The patient had had a 6-week history of "dizzy spells" during which he experienced transient mental confusion, tinnitus, and slurred speech. His blood pressure had ranged around 160/90 ; on admission his B.P. was 105/80. The patient never recovered consciousness and pursued a steady downhill course with his blood pressure at low levels. He died 6 days after admission. Post-mortem examination revealed a basilar artery thrombosis which completely occluded the blood supply to the vital brain stem centers. The relationship of the Rauwolfia to the thrombosis, although obviously not proved, is at least highly suggestive.

We believe that in many elderly patients apparent "hypertensive" blood levels are physiological, that is, an increased head of pressure is necessary, or really secondary, to the decreased peripheral vascular volume. To decrease this head of pressure by means of hypotensive drugs produces additional slowing of the stream and provides fertile ground for thrombotic phenomena

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and/or signs of cerebrovascular insufficiency. One only adds injury to insult by administering hypotensive drugs to such elderly patients.

Also, presumably as the result of cerebrovascular hypotension, we have noted the addition of organic features to paranoid symptomatology in older patients who are on high doses of these medications. The disorientation and confusion in these patients was relieved considerably by reducing dosage or discontinuing the drug.

The following is the prototype of a group of patients we find becoming commonplace. The patient is in the older age group and has recently shown signs of some mental "slipping" viz. recent memory loss, periods of confusion, transient disorientation, etc. He becomes anxious and apprehensive about these symptoms. He reports to his doctor with complaints of "nervousness," insomnia, irritability, periods of depression, etc. The patient is placed on one of the above tranquilizers. His symptoms instead of abating become worse. The dosage of tranquilizer is increased, symptoms increase, and a vicious circle is set up. A number of these patients have come to our psychiatry service with full-blown agitated depressions of psychotic proportions with accompanying organic features. We find that symptoms improve promptly with discontinuance of the medication. We believe that the initial symptomatology is the result of cerebrovascular insufficiency which is then aggravated by administration of the hypotensive tranquilizers.

We believe the physician who is presented with an older patient who has symptoms of anxiety on the one hand or physiological hypertension on the other is well advised to search the history carefully for signs and symptoms of transient organic mental deficit, secondary to cerebrovascular insufficiency, *before* prescribing tranquilizing drugs which are potent hypotensives. A history of confusional episodes, disorientation, vertigo, speech difficulties, tinnitus, etc. would suggest that he will only aggravate the situation by prescribing such drugs and possibly hasten the patient's demise *via* a fatal cerebrovascular thrombosis.

THE CLINICAL EFFECT OF NOR-ETH-ANDROLONE (NILEVAR) ON INCONTINENT MENTAL PATIENTS

GEORGE VLAVIANOS, M.D. AND LUDWIG FINK, M.D.[1]

Nor-eth-androlone (Nilevar[2]) is described as exerting minimal androgenic activity, acting as a "protein anabolic hormone" with additional "myotrophic effect"(1). The latter effect was experimentally determined in animals by the levator ani method(2). The question is raised as to whether the anabolic, myotrophic effect of this medication would apply also to the levator ani and perineal muscles in humans. Would a lessening of incontinence be evident?

Eleven male, deteriorated, mental patients constituted the population used in this study. These patients were randomly selected from those with a history of severe, chronic incontinence, the duration of which ranged from 1 to 55 years. The psychiatric diagnoses included: schizophrenia, manic-depressive psychosis, psychosis with mental deficiency as well as psychosis with syphilitic meningo encephalitis, psychosis due to hereditary cause (hemiplegia). Nilevar was administered to each in total daily dosages of 30 mg. for 17 to 53 days. The age of the patients ranged from 35 to 76 years. All cases had been screened for interfering bladder or prostata lesions. The fluid and dietary regime and nursing care which existed prior to the study were continued without change for each subject. All episodes of wetting and fecal soiling were registered on a 24 hour basis.

Six patients had a positive response with no incontinence from 3 to 7 days after the start of medication and during treatment. Three of them remained continent after medication was discontinued: two for the

[1] Kings Park State Hospital, L. I., N. Y.

[2] Trademark of Searle & Co.

following 5 days and one for 21 days. One deeply regressed schizophrenic showed a surprising improvement in his behavior, concomitant with the improvement of his incontinence. One of these patients (diagnosed as psychosis with syphilitic meningoencephalitis with a 21 year duration of incontinence) showed a positive result in spite of the suspected neuropathic character of his condition. Five patients showed scattered or no influence on their pattern of incontinence.

The authors feel that the number of patients was too small and the time of trial, too short to evaluate conclusively, the effect of this drug on incontinence. This limitation, however, was necessitated by the limited amount of the drug available. Our results warrant further investigation, which may determine the temporal usefulness and the longterm action of this therapy. The serious social impact of the "incontinent patient" on the other hand, the little attention paid to this topic in the literature, especially from the pharmacotherapeutic point of view, made us believe that this preliminary report would be of interest.

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VARIABILITY OF ABSTRACTIONS

Good and evil are relative qualities, dignified very largely by public opinion; and it must always be remembered that certain things which are considered to be correct today may have the denunciation of yesterday and tomorrow. . . . The true student of history will make the effort to cast from him the shackles of his contemporaneous opinions, and to parade the bygone ages in the boundless freedom of a citizen of all time and a dweller in every land.

—Arthur Weigall
(The Life and Times of Cleopatra)

PRELIMINARY REPORTS

TREATMENT OF PSYCHOSES IN EARLY CHILDHOOD WITH TRIIODOTHYRONINE

ALBERT C. SHERWIN, M. D., FREDERIC F. FLACH, M. D., AND PETER E. STOKES, M. D.[1]

Various features in the behavior of children with psychoses such as early infantile autism have suggested a possibility of disturbances in adrenal cortical function. Triiodothyronine was administered to two of these children, because of its influence on endocrine balance, particularly with reference to the steroid hormones of the adrenal cortex(1). In addition triiodothyronine has been felt to stimulate emotions and increase alertness in adult patients(3).

Case 1.—The first patient is a 6 year old boy with markedly autistic behavior from the first year of life, uncommunicativeness, intense insistence on sameness of environment, hyperactivity, repetitive and destructive activity and nonfunctional play. The pediatric workup was negative for organic disease. A diagnosis of early infantile autism was made. After a year and a half of play therapy, he was somewhat more responsive and expressed himself more intelligibly with vocalizing and rarely with a few words. The child was started on a daily dose of 12.5 micrograms of triiodothyronine, and this was built up by adding 12.5 mgs. at two week intervals until a dosage of 75 mgs. had been achieved. He was maintained on this dosage for several weeks and then discontinued. From the time he had reached 50 mgs., definite and interesting changes were noted. These included significantly better contact, with show of affection and smiling; increased interest in the environment (for example, the child watched television for the first time). He began to play occasionally with siblings, and joined the family at the dinner table. There was striking diminution in visual darting movements (wherein the child for the first time looked someone else in the eye); some beginnings of functional play; increase in frustration tolerance, and in ability to learn and conform. Finally he began to say a few more words and appeared as does a small child who is about to develop useful speech. These gains increased steadily until a plateau was reached after about one month on the full dosage. Further gains were observed upon discontinuation of the medication, and these were maintained for 3 weeks.

Case 2.—A second child, now age 6½, presented a picture manifested by limited affective contact, evidence of intellectual retardation, inappropriate play, hyperactivity, and limited communicativeness. Onset of illness occurred in his first year of life. Speech has been used rarely and almost never for communication. Psychological evaluation revealed consistent successes at the 2-3 year level in test items chosen, without any peaks beyond this. The pediatric workup was negative for organic disease. According to criteria described by Despert and Sherwin(2), this child was considered to represent a case of psychosis with apparent mental defect. After 1 year of play therapy there had been little change other than some minimal increase in affective contact. Triiodothyronine was administered essentially according to the same method described above. Significant changes occurred when the child approached the full dosage of 75 micrograms a day. At this time there was a noticeable and marked increase in affective contact and alertness to and interest in environment. The child began to engage in appropriate play, named many objects in the playroom and their use, and occasionally answered questions or made appropriate requests. After one month on the full dosage, he continues to show gains. Hyperactivity has varied, at times being markedly decreased and at other times somewhat increased.

Both children, in the early stages of medication particularly, displayed acute periods of apparent anxiety or fear. Neither child displayed signs of thyroid disease prior to course of medication, or of thyroid toxicity during it.

The first child was later treated with a course of 20 units of zinc corticotrophin

[1] From the Departments of Psychiatry and Medicine, Cornell University Medical College, and the Payne Whitney Psychiatric Clinic of The New York Hospital, New York, N. Y.

I M 5 days a week during which period he displayed increase in hyperactivity but also increase in alertness and affective contact, and some increase in use of speech. Administration has not been associated with clinical evidence of hyperadrenalcorticism. This medication has been combined with triiodothyronine, the latter at dosages of 50-75 micrograms daily. Observations indicate a reinforcement of the increased contact and affective display noted with triiodothyronine alone. Hyperactivity appears to be less marked than with zinc corticotrophin alone, and more marked than with triiodothyronine alone.

During the course of administration, play therapy has been continued without change in frequency or essential approach. It should, however, be stressed that no substance could be expected to change a 6 year old child who had been in limited contact since early in life into a normal 6 year old. Final results must depend upon psychotherapeutic and teaching techniques to make use of the increased contact, if anything is to be gained. Present plans, therefore, include trying these and related medications along with intensive psychotherapeutic and teaching methods on a larger number of patients. In addition, studies of hormonal balance in some patients are in progress. Clinical use of these products must be considered to be in an experimental stage, and further study will be necessary before definite conclusions can be drawn.

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SPINAL FLUID CHANGES DURING CHLORPROMAZINE THERAPY

JAMES K. SMITH, M. D.[1]

This brief report is intended to call attention to the fact that chlorpromazine in the moderately high doses commonly employed in the management of psychoses may lead to the appearance of an increased amount of protein in the cerebrospinal fluid. Occasionally these levels may be of sufficient magnitude to raise the suspicion of associated organic brain disease such as cerebral neoplasm (possibly causing the patient to be subjected to ventriculograms or arteriograms). It seems worthwhile, therefore, to emphasize this potential source of diagnostic confusion, even though the series of observations upon which it is based is still small in number. Although chlorpromazine has been extensively employed in this country since 1954 and on the continent since 1952, a careful search of the literature has thus far failed to reveal any previous reports bearing on this finding.

The present study was prompted by curiosity as to whether the well-known clinical phenomenon of drug-induced Parkinsonism would be reflected by changes in the cerebrospinal fluid. There was no suspicion of organic disease of the nervous system in any of the reported cases, the sole basis for selection being that these were the only patients on the ward receiving the drug in dosage adequate to produce a Parkinsonian syndrome. A brief summary of the essential clinical and laboratory data on the 4 patients follows:

Case 1. A 27-year-old white patient was admitted in his second psychotic episode within a year. He had been hospitalized elsewhere for a schizophrenic reaction, catatonic type, 4 months earlier and had there received thorazine over a 2 month period in levels up to 2,800 mg. daily. There was no history of head trauma, epilepsy or other neurological disorder. Initially he was given promazine 120 mg. daily which was later changed to chlorpromazine. Spinal puncture after 2 months on chlorpromazine (1,600 mg. daily) yielded clear fluid under normal pressure containing

[1] Psychiatry & Neurology Service, VA Hospital, Oakland, Calif.

1 cell, 68 mg. protein[2], negative Pandy, negative serology and gold curve : 3333220000. A neurological examination was negative except for a mild Parkinsonism. Psychological tests showed no organic signs. The patient had subsequently improved and at this writing is home on a trial visit.

Case 2. 42-year old white patient, acute schizo-affective reaction. Past neurological history was negative except for mild head trauma at age 6. He had been well until 2 years prior to this admission when he had received 15 EST treatments at a state mental institution for an acute psychosis. On admission here he was given chlorpromazine, receiving 1,200 mg. daily for 6 weeks when it was reduced to 800 mg. daily. A week later the dose was cut to 400 mg. daily and on the day the spinal fluid was obtained the drug was stopped. The fluid was clear, under normal pressure and contained 2 cells, 51.6 mg.% protein, negative Pandy reaction, negative serology and colloidal gold curve : 1222110000. Neurological examination was normal except for a slight masking of facial expression and reduction of arm swinging in walking. An EEG was within normal limits. He has subsequently been discharged as improved.

Case 3. 26-year old white patient, acute schizophrenic reaction. He had been previously hospitalized here twice within the past 2 years for a similar illness with remission of symptoms under thorazine both times. The past neurological history was negative. He was placed on chlorpromazine reaching a dose of 1,200 mg. daily by the end of a week and continued at this level up to the time of his spinal fluid examination 8 weeks later. The spinal fluid was under normal pressure and contained 2 cells, 108 mg.% protein, a 2+ Pandy reaction, negative serology and gold curve : 1222211000. Neurological examination revealed only mild Parkinsonism. The EEG showed runs of diffuse, symmetrical low voltage slow activity in the 5 to 7 per second range. Psychological tests directed particularly at uncovering possible organic signs of brain damage were negative. The patient is still hospitalized and continues on medication having improved to the point where he is allowed open ward privileges.

Case 4. 47-year old negro patient, schizophrenic reaction of paranoid type. Past history revealed nothing that would point toward possible organic disease of the nervous system. He was placed on chlorpromazine reaching a level of 1,200 mg. daily over a 6-day period. Spinal fluid removed after two weeks on chlorpromazine was under normal pressure and contained 1 cell, 88.5 mg.% protein, 1+ Pandy reaction, negative serology and gold curve : 1222210000. Neurological examination was negative, except for mild Parkinsonism. An EEG was within normal limits. Subsequently this patient improved and has been discharged.

[2] Upper limit of normal in this laboratory : 45 mg.%.

Summary

Four schizophrenic patients receiving chlorpromazine in doses adequate to produce a Parkinsonian syndrome but with no history or physical findings of other neurological disease showed elevation of cerebrospinal fluid protein ranging from 51 to 108 mg.%.

Further studies are, of course, indicated and are under way. Besides confirming these findings in a larger series and investigating related drugs in the phenothiazine group, it is planned to evaluate the effect of dosage and duration of administration. Thus far the opportunity has been granted to examine spinal fluids before and after chlorpromazine on 3 non-psychiatric patients; all were on lower doses than those ordinarily employed in the treatment of psychosis.

After 30 days of chlorpromazine (average daily dose 400 mg.) during which time none of the patients showed Parkinsonian manifestations, the spinal fluid levels rose in one case from 21 to 47 mg.%, in another from 27 to 55 mg.% and in the third from 45 to 57 mg.%.

It is not now possible to say whether an increase in the cerebrospinal fluid protein content is related to an alteration in barrier permeability, or whether it indicates some degree of breakdown of tissue. The findings are here presented in a preliminary form solely to alert physicians working with this drug to a hitherto undescribed effect. It is hoped that dissemination of this information may prove helpful in evaluating spinal fluid data where certain complications or questions of differential diagnosis may arise in individuals undergoing long-term therapy with this drug.

SPECIAL NOTICE

A LIST OF SOME OF THE NEWER DRUGS USED IN PSYCHIATRIC PRACTICE

COMPILED BY S. BERNARD WORTIS

Chemical Name	(Registered Name) (R)	Manufacturer	Dose
I. *TRANQUILIZERS and ATARACTICS* (Major Tranquilizers For Psychomotor Agitation)			
1. *Phenothiazine Derivatives*			
Chlorpromazine	(Thorazine)	(Smith, Kline & French)	200–1000 mg. daily
Promazine	(Sparine)	(Wyeth)	100–200 mg. T.I.D.
Mepazine	(Pacatal)	(Warner-Chilcott)	25–50 mg. T.I.D.
Prochlorperazine	(Compazine)	(Smith, Kline & French)	10 mg. T.I.D.
Perphenazine	(Trilafon)	(Schering)	2–4 mg. T.I.D.
Triphentizine	(Vesprin)	(Squibb)	100–150 mg. daily
Promethazine	(Phenergan)	(Wyeth)	100–150 mg. daily
Thiopropazate	(Dartal)	(Searle)	5–10 mg. T.I.D.
Acetylpromazine Maleate			
Trifluoromethyl Phenothiazine		(Smith, Kline & French 5354)	
Piperidinochlorphenothiazine (N.P. 207)			
W. 1224 (N. Methyl-Piparidyl-3 Methylphenothiazine)			
Win. 13-645.5 (8-3-10 (2 chlorophenothiazinyl 1) Propyl-3 hydroxynortropane ethenesulforate			
Acepromazine (3 Acetyl-10-(3 Dimethylaminopropyl) Phenothiazine maleate			
Triflupromazine			
Trifluoperazine			
2. *Rauwolfia Alkaloids*			
Reserpine	(Serpasil)	(Ciba & other companies)	0.5–1.0 mg. B.I.D.
Deserpidine	(Harmonyl) also designated Raunormine,		
Canescine, Recanescine		(Abbott)	2–3 mg. daily
Rescinnamine	(Moderil)	(Pfizer)	0.25–0.5 mg. B.I.D.
3. *Diphenyl Methane Derivatives* (Minor Tranquilizers for anxiety tension states)			
Azacyclonol	(Frenquel)		
(Frenquel is an analogue of Meratran)		(Merrell)	200–400 mg. daily
Alpha (2 Piperidyl) benzhydrol hydrochloride	(Meratran)	(Merrell)	1–2.5 mg. B.I.D.
Benactyzine	(Suavital)	(Merck)	1–3 mg. daily
Hydroxyzine	(Atarax) P-chlorobenzhydryl Piperazine derivative	(Roerig)	10 mg.–T.I.D.
Phenyltoloxamine	(PRN)	(Bristol)	25–50 mg. B.I.D.
4. *Propanediol Dicarbamate* (Substituted Propanediols)			
Meprobamates	(Miltown) (Equanil)	(Wallace, Wyeth)	200–400 mg. T.I.D.
(These are considered, by some, to be hypnotics.)			
Phenaglycodol	(Ultran)	(Lilly)	300 mg. T.I.D.
II. *STIMULANTS* (*Anti-depressives*)			
Iproniazid	(Marsilid) 1-isonicotinyl-2-isopropyl hydrazine	(Hoffman La Roche)	10–25 mg. T.I.D.
Methyl-Phenidylacetate hydrochloride	(Ritalin)	(Ciba)	5–10 mg. T.I.D.
Deaner Para, acetylaminobenzoate (Deanol) said to be a precursor of acetylcholine		(Riker)	
Orphenadrine	(Disipal)	(Riker)	25–50 mg. B.I.D.
III. *HYPNOTICS AND SEDATIVES*			
Methylparafynol	(Dormison)	(Schering)	250–500 mg. B.I.D.
Glutethimide	(Doriden)	(Ciba)	125–250 mg. T.I.D.
Ethchlorvynol	(Placidyl)	(Abbott)	250–500 mg. B.I.D.
Methyprylon	(Noludar)	(Hoffman La Roche)	50–200 mg. B.I.D.
2 Ethyl—Crotonyl-urea	(Nostyn)	(Ames)	150–300 mg. T.I.D.
Oxanamide	(Quiactin) 2 Ethyl-e Propyl-glycidamide	(Merrell)	800–1000 mg. daily
Heptabarbital	(Medomin)	(Geigy)	200–400 mg. daily
Ethinamate	(Valmid)	(Lilly)	500 mg. P.R.N.
Captodramin	(Suvren)	(Ayerst)	50–100 mg. T.I.D.
5 Androstene—3, 16 Diol	(Cetadiol)		
Methylpentynol	(Oblivon)		

OFFICIAL REPORTS

REPORT OF THE COORDINATING COMMITTEE ON THE TECHNICAL ASPECTS OF PSYCHIATRY

COMMITTEE ON AGING—*Chairman,* Ewald W. Busse : The conclusion was reached that at this particular time the committee should not encourage the formation of a section on aging within the APA ; that interest can be stimulated by a wide distribution of papers throughout the annual program of the APA ; and that panels and round table discussions can contribute a great deal for those who have an established interest in the field. The survey of psychiatric interest in aging by the questionnaire method has resulted in a great deal of information. This includes the fact that 40% of psychiatrists spend no time in practice with patients over the age of 65. Approximately 60% spend some part of their practice time with aging patients or have a research interest in the field. However, only 1% of psychiatrists devote their entire time to the care of the elderly patient, and no psychiatrist was found who devotes his entire research interest to the problems of aging. In cooperation with Dr. Blain, the committee has recommended that a conference be held devoted to the subject of "The States' Responsibilities for the Psychiatric Care of the Aged." Funds from a granting agency would be sought to underwrite this conference and it is hoped that the APA and the Council of State Governments would be co-sponsors.

COMMITTEE ON CHILD PSYCHIATRY—*Chairman,* J. Franklin Robinson : This committee and the Committee on Standards for Hospitals and Clinics submitted a joint statement to the Council as follows : "It is recommended to the Council that the APA recognize Child Psychiatry as a sub-specialty of psychiatry and that to qualify as a child psychiatrist requires special training." Council approved of this statement. Council also approved in principle the statement dealing with "standards for training in the sub-specialty of Child Psychiatry." The document was referred for joint consideration by this committee and the Committee on Medical Education.

COMMITTEE ON HISTORY OF PSYCHIATRY —*Chairman,* J. Sanbourne Bockoven : Since May 1957, this committee has carried out the following projects : 1. The drafting of an application for a grant from NIMH to study the Social History of American Psychiatry. (The application was not approved). 2. The acquisition of space in *Mental Hospitals* for articles on History of Psychiatry. (Two articles have been submitted thus far by the committee.) 3. Application was made to the Aquinas Fund to defray expenses of the History Committee's exhibit at Zurich. (The application was not approved.) 4. Review of historical publications at the Eastern State Hospital, Williamsburg, Va., was made by a member of the committee in preparation for an exhibit at symposium to be held at that hospital in October, 1957. This was not completed as the symposium was called off. 5. The committee also prepared and presented an exhibit on Schizophrenia at the International Psychiatric Congress in Zurich in September, 1957.

COMMITTEE ON MEDICAL EDUCATION—*Chairman,* George C. Ham : The following activities were carried out : 1. Investigated the status of the Directory of Psychiatric Training in the United States and Canada ; 2. Submitted two recommendations to Council, November, 1957 : a. regarding subcommittee on relations with the American Psychoanalytic, and b. teaching institutes ; 3. Distributed material to the members of the Committee in preparation for a joint meeting with the Committee on Child Psychiatry regarding "Standards for Training in the Subcommittee on Child Psychiatry" ; 4. Distributed to all members

of the Committee on Medical Education the report to the Council of the Committee on Child Psychiatry in respect to the education in child psychiatry and the general psychiatric training programs; 5. Arranged with Dr. Walter E. Barton to meet with the committee next fall regarding uniform date for residency appointments; 6. Wrote to Dr. D. Blain the committee's feeling in regard to the teaching of non-psychiatric physicians; 7. The chairmen of the Committee on Research and the Committee on Medical Education jointly developed a round-table at the May meeting on research for medical students and psychiatric residents.

COMMITTEE ON MENTAL DEFICIENCY—As I was in the process of preparing this report, I received the distressing news of the sudden death of Dr. Gale Walker, Chairman of this committee, which occurred on April 22nd.

This committee met in November, 1957 and at that time emphasized the need for a closer relationship between APA and the American Association on Mental Deficiency. A recommendation was made and approved by Council that this organization requests the American Association on Mental Deficiency to appoint a committee to maintain liaison with our Committee on Mental Deficiency.

At the November meeting, the committee also recommended that the APA Council approve and advocate the concept that institutions caring for the feebleminded which have psychiatric programs be recognized as such in name by the use of the term "Hospital." Council requested that the committee re-write this recommendation. The committee had a special meeting in Asbury Park in March, 1958 and re-wrote this suggestion, which was later presented to the Council.

COMMITTEE ON PUBLIC HEALTH—*Chairman,* John J. Blasko: A statement of the aims and purposes of this committee was submitted in the committee's October, 1957, report. Committee members have been assisting in the APA surveys to determine ways and means of making these surveys more effective. The Committee on Public Health and the Joint Commission on Mental Illness and Health co-sponsored a dinner round-table on "Emergency Psychiatric Services" held on Tuesday evening, May 13, 1958, at the annual APA meeting in San Francisco. The proceedings of this meeting will be recorded by the Joint Commission on Mental Illness and Health as part of their task in carrying out the mandate from Congress to survey psychiatric care in the community. The committee has initiated a study of the curricula of schools of public health to determine the content and adequacy of courses dealing with problems of mental illness.

COMMITTEE ON REHABILITATION—*Chairman,* Benjamin Simon: The committee reports the following activities: 1. A round table entitled "The Place of the Ancillary Disciplines in the Therapeutic Use of Self" was held during the APA meeting. 2. Council has approved the appointment of Dr. Donald Carmichael as representative of the APA on the Interdisciplinary Study Group which is composed of representatives of seven national organizations whose members contribute to the care of psychiatric patients. 3. At the request of the American Registry of Physical Therapists, Dr. Simon has been appointed to represent the APA on this Registry. 4. Chairman, Dr. Simon, represented the APA, Committee on Rehabilitation at the Princeton Conference of the New Jersey Neuropsychiatric Institute on "Rehabilitation," the proceedings of which will be published. 5. Dr. Simon, as a member of the Executive Committee of the Advisory Committee on Physical Therapy Education to the Council on Medical Education and Hospitals of the American Medical Association met with the Executive Committee in New York, in June 1957, and with the whole Committee on February 11, 1958, working on the approval of several schools of Physical Therapy. 6. The first meeting of the Advisory Committee on Occupational Therapy Education to the Council on Medical Education and Hospitals of the American Medical Association took place on February 11, 1958, with Dr. Simon representing the APA. Dr. Simon was unanimously elected Chairman of the Advisory Committee. 7. At the Symposium

on "Rehabilitation" of the American Association for the Advancement of Science in Indianapolis on December 28 and 29, 1957 (under the joint sponsorship of the AAAS and the Committee on Research of the APA, represented by Mr. Milton Greenblatt) Dr. Simon opened the meeting and moderated the first session. Under the joint editorship of Dr. Greenblatt and Dr. Simon, the proceedings are now being edited for publication in a separate volume. Participating in the Conference, as well, were Dr. Donald Carmichael and Dr. Harold Martin, of the Committee on Rehabilitation. 8. Revision of the Report, "Architectual Planning for Activities Areas" is now in process and was discussed further at the San Francisco meeting of the committee. 9. Council approved a request for a letter to the President's Committee on Employment of the Physically Handicapped designed to include the mentally ill. Letter has been sent to President Eisenhower by the APA. 10. 1959 Round Table, tentatively titled as : "Goals of Rehabilitation ; Fact and Fancy ; Concept of Cure," which will be developed under the direction of Dr. Nagler.

COMMITTEE ON RESEARCH—*Chairman*, Robert A. Cleghorn : Their activities are as follows :

1. *Regional Research Meetings.* Successful meetings were held at Montreal, Quebec and Columbus, Ohio. Proposals for meetings in Salt Lake City, Denver and Louisville were deferred to a later date. Meetings for 1958-59 are projected for Little Rock, Ark. ; Chicago, Ill. and Seattle, Wash., and possibly for one or two other places.

Regional Research Reports of the Syracuse meeting are available, and those of the Philadelphia meeting are in the final stage of being processed.

2. *Joint Conference between the APA and the A. A. A. S.* A highly successful meeting was held at Indianapolis in December, 1957, entitled : "Rehabilitation of the Mentally Ill : Social and Economic Aspects," this being organized by Dr. Greenblatt. In view of the enormous amount of work involved, the question whether these meetings should be continued or reduced to alternate years has been raised.

3. *Adolf Meyer Lectureship.* Dr. W. Mayer-Gross of Birmingham was nominated for this lectureship for 1958, and has accepted.

Difficulty has been encountered in getting the 1957 lecture by Dr. Akerfeldt, and the associated discussion, published.

4. *Methods for Increasing Research Activities in Students and Interns.* This constituted a matter of concern to the committee and, in order to further the matter, a round table discussion was planned for the San Francisco meetings in conjunction with the Committee on Medical Education. The title of the topic is : "The Place of Research in Student and Resident Training."

5. *Conference on "Recruitment and Training of Psychiatric Research Personnel and Research Administration."* Considerable correspondence has taken place between the Committee on Research, Dr. Curran, Dr. Blain and Dr. James G. Miller, Chairman of the Committee on Psychopathology of G. A. P., regarding a proposed conference to be held on the above topic. The Executive Committee has authorized collaboration in obtaining a grant to prepare for and engage in a working conference.

COMMITTEE ON THERAPY—*Chairman*, Paul H. Hoch : This committee discussed the possibilities of preparing a brief and simple set of recommendations for distribution on "methods of evaluating psychiatric therapies." These recommendations would indicate the minimal criteria which must be met, common errors to be avoided, and also problems of evaluation which cannot be resolved. The committee also discussed its possible plans how to acquaint general practitioners with newer aspects of psychiatric therapy. This question will be discussed further in future meetings.

AD HOC COMMITTEE ON EDUCATION IN PUBLIC HOSPITALS IN LIAISON WITH THE AMERICAN PSYCHOANALYTIC ASSOCIATION—*Chairman*, Bernard Bandler : This is an *ad hoc* committee and submits its report

directly to Council. There is some overlapping of its activities with the Committee on Medical Education and I have taken the liberty therefore of including it in this report to the membership. This committee during the last year has brought its program and the means for implementing it into clearer focus. The program is to gather information on the actual experiences of public hospitals in respect to the recruitment and utilization of psychiatrists from universities and private practice for staff training. Information sought includes such questions as: Does the need for staff education exist in state hospitals? Would not the university staff learn something? How does one start a program? How does one finance a program? What hurdles were encountered, i.e. who were they, in the university, in the hospital, money problems and so forth? What types of programs have been started? What specific problems have arisen in forms of resistance, personnel difficulties and so forth? What has been the effect on medical staff and other hospital personnel? What has been the effect on the calibre of patient care?

The committee plans to implement this program through organizing a series of round tables or panels and workshops at the meetings of the APA, Mental Health Institute, and the Canadian Mental Health Institute. Participants in the panels will be selected on a regional basis depending on the site of the meeting. The panel at the 1958 meeting on "How Can the State Hospital Recruit and Utilize Psychiatrists in Private Practice and Universities for Staff Education" is an example. Since the meetings will cover Canada, the far west, the mid west and the east, it is anticipated that a representative body of experience will be presented and documented.

The committee plans to organize and tabulate this data and possibly to prepare a brochure in order to make it available. On the basis of this data, the committee would, furthermore, be in a position to make recommendations as to the possible value of a workshop or conference at some future time.

In conclusion, I wish to pay public tribute to the zeal and efficiency of all of the members of all of these committees which I coordinate. The committee men work not only closely with other members of our Association, but also with other national and state organizations, and their work reflects credit on American psychiatry and on American medicine.

FRANK J. CURRAN, M. D.
Chairman

HOSPITALS APPROVED AND CONDITIONALLY APPROVED BY CENTRAL INSPECTION BOARD

Dr. Charles K. Bush, Chief Inspector of the Central Inspection Board, submits the following lists of hospitals inspected and fully approved to date, and those conditionally approved.

HOSPITALS APPROVED BY THE CENTRAL INSPECTION BOARD

Public Hospitals: Fairfield State Hospital, Newtown, Conn., Connecticut State Hospital, Middletown, Conn., Norwich State Hospital, Norwich, Conn., Galesburg State Hospital, Galesburg, Ill., Spring Grove State Hospital, Catonsville, Md., Boston State Hospital, Boston, Mass., Metropolitan State Hospital, Waltham, Mass., Worcester State Hospital, Worcester, Mass., Northville State Hospital, Northville, Mich., New Hampshire State Hospital, Concord, N. H., Danville State Hospital, Danville, Pa., Mayview State Hospital, Mayview, Pa., Norristown State Hospital, Norristown, Pa., U. S. Public Health Service Hospital, Lexington, Ky., V. A. Hospital, Sepulveda, Calif., V. A. Hospital, Brockton, Mass., V. A. Hospital, Montrose, N. Y., V. A. Hospital, Salisbury, N. C., V. A. Hospital, Pittsburgh, Pa., V. A. Hospital, Fort Meade, S. D., V. A. Hospital, Salt Lake City, Utah.

Private Hospitals: Institute of Living, Hartford, Conn., North Shore Hospital for Psychiatric Treatment & Research (formerly North Shore Hospital, Winnetka, Ill.,)

C. F. Menninger Hospital, Topeka, Kan., Cedarcroft Sanitarium, Silver Spring, Md., Sheppard & Enoch Pratt, Towson, Md., McLean Hospital, Waverly, Mass., Ring Sanatorium, Arlington Hts., Mass.

HOSPITALS APPROVED CONDITIONALLY BY THE CENTRAL INSPECTION BOARD

Public Hospitals: Arizona State Hospital, Phoenix, Ariz., Agnews State Hospital, Agnew, Calif., Camarillo State Hospital, Camarillo, Calif., Metropolitan State Hospital, Norwalk, Calif., Napa State Hospital, Imola, Calif., Patton State Hospital, Patton, Calif., Stockton State Hospital, Stockton, Calif., Chicago State Hospital, Chicago, Ill., Kankakee State Hospital, Kankakee, Ill., Manteno State Hospital, Manteno, Ill., Woodmere State Hospital, Evansville, Ind., Topeka State Hospital, Topeka, Kan., Augusta State Hospital, Augusta, Me., Springfield State Hospital, Sykesville, Md., Danvers State Hospital, Hathorne, Mass., Foxborough State Hospital, Foxborough, Mass., Gardner State Hospital, East Gardner, Mass., Grafton State Hospital, North Grafton, Mass., Medfield State Hospital, Medfield, Mass., Northampton State Hospital, Northampton, Mass., Taunton State Hospital, Taunton, Mass., Westborough State Hospital, Westborough, Mass., Pontiac State Hospital, Pontiac, Mich., Traverse City State Hospital, Traverse City, Mich., Ypsilanti State Hospital, Ypsilanti, Mich., St. Louis State Hospital, St. Louis, Mo., Hastings State Hospital, Ingleside, Neb., New Jersey State Hospital, Greystone Park, N. J., New Jersey State Hospital, Marlboro, N. J., New Jersey State Hospital, Trenton, N. J., Oregon State Hospital, Salem, Ore., Harrisburg State Hospital, Harrisburg, Pa., Philadelphia State Hospital, Philadelphia, Pa., Warren State Hospital, Warren, Pa., Woodville State Hospital, Woodville, Pa., Rhode Island State Hospital, Howard, R. I., Austin State Hospital, Austin, Tex., Terrell State Hospital, Terrell, Tex., Eastern State Hospital, Williamsburg, Va., Western State Hospital, Fort Steilacoom, Wash., U. S. Public Health Service Hospital, Fort Worth, Tex., Provincial Mental Hospital, Essondale, B. C., Canada, Territorial Hospital, Kaneoke, Hawaii.

Private Hospitals: Emory John Brady Hospital, Colorado Springs, Colo., Fairview Sanitarium, Chicago, Ill., Our Lady of Peace Hospital, Louisville, Ky., Chestnut Lodge, Rockville, Md., Seton Institute, Baltimore, Md., Bournewood, Brookline, Mass., Harworth Hospital, Detroit, Mich., Ingleside Hospital, Cleveland, Ohio, Morningside Hospital, Portland, Ore., Oak Ridge Sanitarium, Austin, Tex., St. Mary's Hill, Milwaukee, Wis., Owen Clinic, Inc., Huntington, W. Va., Institute Albert Prevost, Montreal, Que., Canada.

HISTORY ALIVE

History no longer shall be a dull book. It shall walk incarnate in every just and wise man. You shall not tell me by languages and titles a catalogue of the volumes you have read. You shall make me feel what periods you have lived.

—EMERSON

COMMENT

MENTAL HOSPITAL BEDS—PRESENT AND FUTURE NEEDS, NEW YORK STATE SERVICE

A number of statements questioning the need for additional mental hospital beds have been given wide publicity in recent months. Most of them are characterized by a confusion of issues and are largely based on either fallacious assumptions or faulty reasoning .

There are two major issues involved which must be clearly separated if we are to give either of them sound consideration. The first issue is whether additional facilities are or will be needed. The second is a determination of the kind of facility which will best meet the need, if such a need exists.

At the present time the New York State mental hospitals are over-crowded by some 18,500 patients. The new construction under way or planned falls considerably short of this existing need. Funds have been appropriated for only about 10,000 additional beds. In addition, site development and preliminary planning are under way for a new hospital in the Bronx.

The decrease in hospital population has averaged considerably less than one percent a year. By the time available beds outnumber the patient population (if present trends continue) many of the existing facilities will have to be abandoned as unfit for use. More than a third are 50 to 115 years old. About 3,700 beds have already been earmarked for demolition. At Manhattan State Hospital new construction is gradually replacing all of the obsolete, antiquated buildings now occupied, which were constructed in the 19th century. Similar replacements will have to be made before very long throughout the state.

In addition to an utter disregard for these replacement needs, there is a completely unwarranted assumption underlying much of the argument against construction. This is the naive belief that the mental hospitals can be emptied in short order if we can just obtain sufficient quantities of the new drugs.

The tranquilizing drugs are a potent tool in the treatment of mental illness but there must be a balance in any appraisal of their effectiveness. As far as we know, the New York State hospital system was the first in the world to use large scale drug therapy. Having acquired in the last few years a wealth of experience and a substantial body of knowledge, we are in a position to know what we are doing and what to expect of the drugs.

Financial considerations are not in any way limiting the drug treatment program in our hospitals. The fact is, however, that only 50 to 60 percent of newly admitted patients are suitable for drug therapy and not all of these improve sufficiently to leave the hospital. Among chronic patients not more than 10 percent can be expected to improve enough to be released. Certain groups, such as the arteriosclerotic and senile, are virtually unaffected by this therapy.

There is no question that the drugs do improve many more patients than previous treatments, but those at our disposal today will not make it possible for us to close the mental hospitals. Perhaps some future drug may reach this degree of effectiveness but it is not within our present grasp.

The bulk of mental hospital populations consists of the arteriosclerotic and senile, and schizophrenics who have not responded to treatment. While the efficacy of the newer treatments is universally recognized, we do not yet know to what degree they will prevent chronicity. We have yet to determine how many of the patients who originally respond to the drugs will remain well. Should treatment procedures be developed which will prevent the relapse of schizophrenic patients, and other methods be introduced which will permit the release of large numbers of arteriosclerotic and senile patients, the whole present hospital building policy for the mentally ill will have to be revised.

Regarding the size of our state hospitals, I am in full agreement with the opinion that, psychiatrically, small hospitals are much to be desired. (The optimum size has yet to be determined by controlled experiment.) Public service, however, must deal with the fiscal

realities of government. Responsible public administrators must strike a balance between maximum service and minimum cost. It has never been convincingly demonstrated to state budget officials that small institutions are no more expensive to build and operate than large ones. In New York, budgetary requirements for state care of the mentally ill are already staggering, amounting to one-third of the state's total operating budget. The Department of Mental Hygiene, along with every other government agency, is dependent upon and limited by state revenues. Any demands for improvement which will drastically increase its operating cost should be accompanied by a responsible proposal for obtaining the necessary additional revenues.

The difficulty of staffing a number of small scattered institutions is another serious problem which has not been given adequate consideration.

Owing to building policies of the past, New York State now has a number of large hospitals. We believe that the introduction of the open hospital and its philosophies of care, as well as its increasing emphasis on milieu therapy, will tend to obviate many of the objections to these existing large hospitals. New York is moving rapidly toward the open hospital system.

The location of existing hospitals cannot be changed and in the light of today's viewpoint, criticism of their physical isolation is academic. Actually, half of New York's present institutions are located in populous urban centers. The sites for our new hospitals have been carefully selected on the basis of their urban location—close to the center of population, near sources of both professional and nonprofessional personnel, and adjacent to medical schools. New institutions will be in every possible way a part of the community. This policy is firmly established.

There seems to be a widespread assumption that all mental patients could be treated outside of hospitals if only sufficient community facilities were available. (Basic to this belief is an implicit faith in the universal efficacy of the tranquilizing drugs.) Day or night hospitals are frequently cited as "bed-saving" services. Our experimental program includes two day hospitals, where patients receive full hospital treatment during the day and return to their homes at night. As yet we have no conclusive evidence that such day or night centers can substantially replace regular bed facilities.

The question is, how many patients in the initial stages of their illness could be treated outside of a hospital?

For one thing, many patients cannot be treated in the environment in which they became ill. Whether or not the environment is the cause of the mental upset, it plays an important part in the patient's ideation and emotional life. For such patients the hospital provides the proper environment.

Another vital factor in the ambulatory treatment of acute mentally sick patients is the supervision and control of drug therapy. Many of these patients need the prescribed drug in such amounts that complications can occur. These patients must be constantly watched by trained personnel. Such personnel cannot be replaced by relatives or other untrained persons. A very competent and cooperative environment is necessary for these patients to be treated effectively in the community. This is hardly possible outside of a hospital.

The tranquilizing drugs are used very extensively outside of mental institutions, but their use has not prevented the rise in the hospital admission rate. It is true that some patients can be treated without hospitalization, particularly those with some of the milder disorders. Many more can be treated in a clinic after an initial period of hospital care. But the suggestion that all psychotic patients—or even substantial numbers of them—can be treated in a clinic without hospitalization has no basis in fact. We shall need far more effective therapies than we have today to treat all these patients in an ambulatory setting.

The question with which government is vitally concerned is the determination of future needs in hospital care and proper provision for meeting these needs. The overcrowding in our mental hospitals is a distressing reality that no amount of optimism can alleviate. While we are releasing more patients we are still faced with rising admissions and other forces which tend to increase hospital populations. The actual decrease in our population during the last three fiscal years amounts to about two percent.

Most of the buildings being added to ex-

isting New York State institutions provide special facilities not previously provided. The majority of new beds, for example, are in medical-surgical-reception buildings, urgently needed in every hospital. This need will continue to increase as new admissions include more and more of the type of patient requiring intensive medical care. The reception units in these buildings also provide facilities for our recently developed program of intensive treatment for all newly admitted patients. The children's units will provide another kind of service for which special buildings are required. Whether we needed additional beds or not, it would still be necessary to provide facilities for modern medical and psychiatric treatment.

The New York State Department of Mental Hygiene has been vitally involved in the new developments in the mental health field and is fully aware of their encouraging implications for the future. We are confident that more and more effective treatments will be developed as time goes on.

But on the basis of broad experience with treatments now at hand we do not expect releases from our mental hospitals to increase spectacularly. Our bed-building program, however, is a flexible one, at the present time consisting largely of plans which have not yet been implemented. Some of these have already been modified. Commitments are limited to the small percentage of beds now under contract. Should new developments in treatment lead to drastic reductions in our hospital population, we are in a position to curtail or withdraw any proposals for new construction.

P. H. H.

JUNG ANNOTATES MODERN ART

In a contribution to the Jubilee issue of the *Atlantic* (Nov. 1957) Carl Jung talks about God, the Devil, and the Human Soul, and presumably with more specific reference to the last of these three entities, about modern art. Of modern art it may be assumed that the ultramodern is the kind in question. And as a guide to the meaning, if any, of productions so categorized it will be interesting and perhaps useful to know something about the nature and quality of the producers. As a pathway to the core of personality, and to self-knowledge as well, Jung cites the "unconscious *Zeitgeist*," and he gives modern art as a characteristic expression of this *Zeitgeist*.

Modern art, he explains, while seeming to deal with aesthetic problems is really breaking down and destroying previous aesthetic views, replacing pleasingness of the artistic products by "chill abstractions of the most subjective nature which brusquely slam the door on the naïve and romantic delight in the senses." What modern artists give us, he says, is the "dark chaos of subjectivisms."

In other words, if we understand Jung clearly, when you look at one of these ultramodern horrors hanging on the gallery wall and wonder why it is there or see it reproduced in full colour in an art magazine, what you really see is not a fortuitous aggregation of pigment smears on canvas that could have been usefully used, or the malicious "flinging a pot of paint in the public's face," but you are viewing aghast an actual replica of the unenviable unconscious of the man who made the picture of the dark chaos of his subjectivism.

Therefore an exhaustive study of the personality, along with a battery of tests, of a dozen or so representatives of the *avant-garde* might afford some significant diagnostic information. In the words of critic Henry McBride, "This is something to be looked into, perhaps."

NEWS AND NOTES

Connecticut Association For Mental Health Golden Anniversary.—A brochure with gilded covers commemorates the 50 years story of the Mental Hygiene movement, beginning with the publication in 1908 of Clifford Beers' *A Mind That Found Itself* and the founding in that year in New Haven of the Connecticut Association For Mental Health.

The brochure contains a detailed history of the mental health movement in the past fifty years, with pictures of Clifford Beers; the Golden Anniversary Mental Health Awardee, G. Brock Chisholm, M. D.; and of the Director of the World Federation for Mental Health, Dr. John R. Rees of London, who later delivered the Academic Lecture at the 114th annual meeting of The American Psychiatric Association in San Francisco. There are also several group photos of current staff members of the Connecticut Association.

Celebrations of the Golden Anniversary included a dinner at the Hotel Taft, New Haven, Conn., attended by the Hon. Luther Alverson, President of the National Association for Mental Health, Hon. Benjamin Cohen, Under-Secretary of the United Nations, Hon. Abraham A. Ribicoff, Governor of Connecticut, and Drs. Chisholm and Rees.

Isaac Ray Lectureship Award.—Dr. Alistair William MacLeod, assistant professor of psychiatry at McGill University, Montreal, is the 7th winner of the $1000 Isaac Ray Lectureship Award of The American Psychiatric Association. The award is given annually to a psychiatrist or a lawyer or judge for an outstanding contribution to furthering understanding between the two professions.

As recipient, Dr. MacLeod will deliver a series of lectures on psychiatry and the law at the University of Manitoba, Winnipeg, Canada.

Dr. MacLeod is a native of British Columbia. Following graduate training in public health and tropical medicine at Glasgow and Edinburgh Universities, he studied psychological medicine at the University of London, law at the Inner Temple in London, and completed training at the Institute of Psychoanalysis.

Dr. MacLeod has been active in penal reform in Canada for many years. He is also on the staffs of the Royal Victoria Hospital and the Mental Hygiene Clinic in Montreal. He is a member of the Royal College of Physicians (London), The American Psychiatric Association, the American Psychoanalytic Association, and a past-president of the Canadian Psychoanalytic Society.

Dr. Lowry Heads Bureau of Medical Services, U.S. P.H.S.—Surgeon General Leroy E. Burney of the U. S. Public Health Service has announced the appointment of Dr. James V. Lowry as Chief of the Bureau of Medical Services with the rank of Assistant Surgeon General. He succeeds Dr. John W. Cronin who died suddenly on March 26.

Dr. Lowry entered the Public Health Service in 1937. For several years he served with the National Institute of Mental Health, where he was responsible for the development of community mental health services. He has also served as Medical Officer in Charge of the Public Health Service Hospital, Lexington, Ky., where patients are treated for mental disorders, including narcotic addiction.

Dr. Lowry is a diplomat of the American Board of Psychiatry and Neurology and has been a member of The American Psychiatric Association since 1945. He is a past president of the Kentucky Psychiatric Association.

National Society for Crippled Children and Adults.—The annual convention of the National Society will be held in Dallas, Tex., November 16-20, 1958.

Nicholson J. Eastman, M.D., past-president of the American Academy for Cerebral Palsy, chief of obstetrics at Johns Hopkins University School of Medicine, will speak to professional rehabilitation workers at-

tending the meeting. Convention sessions will also include institutes, seminars, workshops, round table discussions and demonstrations by leading experts in the rehabilitation field.

For further information write Catharine Bauer, Director of Information, National Society for Crippled Children and Adults, 11 South La Salle St., Chicago 3, Ill.

TAPE-RECORDING DATA REQUESTED.—Dr. Hans S. Unger, 362 Forest Avenue, Buffalo, N. Y., is interested in receiving information from psychiatrists with regard to their experiences with various types of tape recorders both for interviewing and dictation purposes for an impartial survey of the different types of instruments on the market. Psychiatrists are invited to send an account of their impressions to Dr. Unger at the above address.

AWARDS FOR PSYCHIATRIC AIDES.—One hundred and twenty-six ward attendants were selected for citations by the National Association for Mental Health, for their skill and kindness in caring for patients in their charge.

Each winner received an NAMH gold pin and a certificate of achievement in tribute to "the special skills in practical human relations which form such a vital part of the treatment and recovery of the mentally ill." These awards were presented at special ceremonies throughout May, Mental Health Month. The recipients, 70 women and 56 men, represent 126 mental hospitals in 39 states and the District of Columbia.

A. E. BENNETT NEUROPSYCHIATRIC RESEARCH FOUNDATION AWARD.—Dr. Max Fink, director of the department of experimental psychiatry at Hillside Hospital, Glen Oaks (Queens), New York, received the first A. E. Bennett Award presented by the Society of Biological Psychiatry at the group's 13th annual meeting in San Francisco, California, on May 11, this meeting being part of The American Psychiatric Association annual meeting.

Dr. Fink presented a paper titled, "Effect on Anti-Cholinergic Agent, Diethazine, on EEG and Behavior : Significance for Theory of Convulsive Therapy."

PROFESSIONAL ASSOCIATION ON ALCOHOLISM.—The following officers were elected at the Association's fourth Annual Meeting held in Boston, April 2, 1958:

President : James Morrison, M. D. ; President-elect : Harold W. Demone ; Vice-President : Joseph Thimann, M. D. ; Secretary-Treasurer : David Landau, M. D. Also elected were seven new members to the Board of Directors.

The purposes of the Society are to provide a medium for discussion of the work of professional persons engaged in rehabilitation, research and/or professional education in the field of alcoholism and to guide, encourage training of, and help obtain financial assistance for, professional personnel in these areas.

For further information as to membership in the Society write : David Landau, M. D., Secretary-Treasurer, Professional Association on Alcoholism, 350 Beacon St., Boston 16, Mass.

PRESENTATION OF THE PORTRAIT OF DR. KARL M. BOWMAN.—The Langley Porter Neuropsychiatric Institute and the Department of Psychiatry, University of California School of Medicine, held an official presentation of the portrait of Dr. Karl M. Bowman, May 9, 1958, to the Institute. Dr. Bowman was the medical director of the Langley Porter Neurological Institute since its opening in 1943 until his recent retirement.

SMITH, KLINE AND FRENCH FELLOWSHIPS.—The American Psychiatric Association has announced the award of 10 Smith, Kline and French Foundation Fellowships in psychiatry. These Fellowships, totalling $13,150, are the final awards of the 3-year $90,000 grant established in 1955 to provide a broad range of training opportunities in psychiatry.

A total of 14 recipients, including 10 medical students, will benefit in the latest group of grants. Their projects vary from a study of the treatment results in schizophrenia to experiments with mescaline, an hallucinating agent.

Appointment of Dr. Bernard Saper.—Paul H. Hoch, Commissioner N. Y. State Department of Mental Hygiene, has announced the appointment of Dr. Bernard Saper, director of the counseling center and assistant professor of psychology at Northwestern University, Evanston, Ill., as director of psychological services in the Department, effective July 1.

Dr. Saper succeeds Dr. Elaine F. Kinder, who will devote full time at Rockland State Hospital to a follow-up study of brain-operated (topectomy) schizophrenic patients. This study is jointly supported by the Foundation for Mental Hygiene, Inc., State Department of Mental Hygiene, and the National Institute of Mental Health.

Central Repository for Medical Credentials.—The Secretary General of The World Medical Association has announced that on July 1, 1958, the services of a Central Repository for Medical Credentials will become available to the doctors of the world, as a means of assuring that they will always be able to prove themselves medically trained and fully accredited to practise medicine.

The lifetime cost of the service on a one-payment basis to the newly graduated doctor is approximately $60.00 (U. S. A.). An actuarial schedule has been established for doctors in the various age groups. Provisions are made for the depositor to add additional credentials he receives to his file in the Repository at a minimal charge.

Further information on the Central Repository for Medical Credentials is available from The World Medical Association, 10 Columbus Circle, New York 19, N. Y.

NIMH and Psychopharmacological Research.—In a statement presented before the Subcommittee on Legal and Monetary Affairs, Committee on Government Operations, Dr. R. H. Felix, Director of the National Institute of Mental Health, discussed the several groups of psychiatrically significant drugs introduced during the last few years. He described both the tranquilizing and energizing drugs, their therapeutic use and value, side effects, limitations and the implications in research and mental health.

Because of the many problems involved and the need for comprehensive research into all aspects of psychopharmacology, the NIMH established the Psychopharmacology Service Center in 1956. The objectives: to support clinical research in efficacy of the new drugs and their toxic and side effects: to develop better drugs and investigate their modes of action. The Institute is now supporting, through research grants, 79 investigations in psychopharmacology.

The Center has also issued (March 1, 1958) an Annotated Reference List on Meprobamate. Some 127 articles on this drug which appeared in the English language through 1957 are summarized. The material is available to interested investigators from The Psychopharmacology Service Center, NIMH, Bethesda 14, Md.

Psychiatry for the General Practitioner.—To contribute to the growing movement to provide psychiatric training for the family physician, the Carrier Clinic, in cooperation with the New Jersey Chapter of the American Academy of General Practice, and Smith, Kline and French Laboratories, sponsored a series of 6 seminars entitled "Psychiatry for the General Practitioner" in the spring of 1957.

Abstracts of the 18 papers presented, together with follow-up questions and answers are now available in a single 136 page publication, under the above title. For further information write Russell N. Carrier, M.D., Director, The Carrier Clinic, Belle Mead, N. J.

Hebrew Medical Journal.—In 1957 the Hebrew Medical Journal reached its thirtieth anniversary of publication, under the editorship of Moses Einhorn, M.D. This semi-annual, bi-lingual (Hebrew and English) publication has shown particular interest in reviving Hebrew medical terminology, in Jewish contributions to medicine, in the medical problems of Israel and in historical aspects of Jewish medicine as found in the Bible, the Talmud, and medieval manuscripts. It is an excellent publication and a valuable contribution to the world's medical literature.

The editorial office is located at 983 Park Avenue, New York, N. Y.

Lester H. Gliedman Killed in Plane Crash.—Dr. Lester H. Gliedman, assistant professor of psychiatry, Johns Hopkins Medical School, and his wife were killed in a collision between their plane and an Army jet while returning from the annual meeting of The American Psychiatric Association in San Francisco. He was a superior teacher and therapist, and though completing his training only 5 years ago had made significant research contributions in the areas of psychotherapy and alcoholism. He served with distinction as consultant and on the boards of several community agencies concerned with the emotionally disturbed. A man of unusual intelligence, boundless energy, and warm humanity, his loss is widely and deeply mourned.

School Psychology Conference, Asheville, N. C.—A conference sponsored by the Southern Regional Education Board under a grant from the National Institute of Mental Health was held in Asheville, N. C., June 26-28, to aid state and local school systems to consider means of using psychologists in schools.

Participating in the conference were chief state school officers, heads of university departments of psychology and education, and representatives from city, county and state school systems.

Milwaukee Neuro-Psychiatric Society.—At the annual meeting of the Society, May 21, 1958, the following officers for the year 1958-59 were elected: president, Edward Carl Schmidt, M. D.; vice-president, Bernard Kaufman, M. D.; secretary-treasurer, Henry Veit, M. D.; councillors remaining, David Cleveland, M. D. and Isaac Sarfatty, M. D.

Training at Bronx VA Hospital.—The Bronx VA Hospital announces that its 3-year training program in psychiatry now includes an affiliation with Columbia University. Residents will receive concurrent supervised training in child and female psychiatry during a full 9 months' period at the Columbia University Medical Center and the Psychiatric Institute. This portion of the training program is under the supervision of Dr. Lawrence C. Kolb, Dr. Irville H. MacKinnon, and Dr. Bernard L. Pacella.

Dr. Greaves Heads Dept. of Psychiatry, Kansas University.—Dr. Donald C. Greaves has been appointed professor and head of the department of psychiatry at Kansas University Medical Center in Kansas City, Kansas, effective July 1, 1958. He had been an associate professor in the department with Dr. Louis J. West since July 1, 1955, and before that was with Dr. Oskar Diethelm at the Payne Whitney Psychiatric Clinic of the New York Hospital.

Homewood Sanitarium 75th Anniversary.—To celebrate the completion of seventy-five years of service the Homewood Sanitarium of Guelph, Ontario, oldest and best known private mental hospital in Canada, invited the Ontario Psychiatric Association to hold its regular meeting at the Sanitarium May 23, 1958.

The program included a luncheon with a masterly contrived social hour preceding and followed by an address by the guest speaker, Dr. John R. Rees, of London, Director of the World Federation of Mental Health. Dr. Rees gave an account of psychiatric work in progress in various parts of the world. His address was followed by a scientific program.

To commemorate Homewood's 75th anniversary a booklet had been prepared giving the history of the institution, illustrated by photographs, including those of the founder, J. W. Langmuir, the present superintendent, Dr. A. L. MacKinnon, and others, and documenting the valuable part the hospital has played in Canadian psychiatry.

The American Group Psychotherapy Association Publications.—The Association wishes to announce that it has published two separate abstracts covering the scientific papers presented at its 1957 and 1958 Conferences.

These original papers serve as a comprehensive survey of work going on currently in this field. They may be had by request to AGPA, 1790 Broadway, New York City at cost price to the organization of $1.00 each.

The National Foundation for Infantile Paralysis Fellowships.—September 1st and December 1st are the current

deadlines for applications to the National Foundation for Infantile Paralysis for post-doctoral fellowships in research and academic medicine or in the clinical fields of rehabilitation, orthopaedics and preventive medicine. Applications for fellowships in the medical associate fields of physical therapy teaching and occupational therapy teaching should also be filed by these dates. A spring date of March 1 is also provided.

Financial support varies according to previous education, professional experience, marital status, and number of dependents. Compensation to the institution is arranged according to the program undertaken. For a full academic program, tuition and fees are allowed; for other programs, a sum not to exceed $1,250.00 per year (includes tuition) is provided.

The National Foundation has authorized the expenditure of $26,500,000 since 1938 for scholarships and fellowships, and for aid to educational institutions, professional organizations, and related activities.

For further information write to Division of Professional Education, National Foundation for Infantile Paralysis, 301 East 42nd St., New York 17, N. Y.

Central New York Psychiatric Society.—The semi-annual dinner meeting of the Finger Lakes Neuropsychiatric Society and the Central New York District Branch, APA, was held at Canandaigua VA Hospital, June 12, 1958. Constitutional amendments unifying both societies were introduced enabling all psychiatrists in the Central New York area to be eligible for either full membership or associate membership in the Central New York District Branch. With these changes the Central New York District Branch of the APA will be one of the largest branches in this state. All psychiatrists in this area who are not at present either full members or associate members are invited to join the organization. Requests for applications should be addressed to Dr. Murray Bergman, 529 Church St., Newark, N. Y.

Association for Research in Nervous and Mental Disease.—The annual meeting of the Association for Research in Nervous and Mental Disease will be held on December 12 and 13, 1958, at the Hotel Roosevelt, New York City. The subject of the meeting will be "Neuromuscular Disorders."

Dr. Lee M. Eaton, Rochester, Minn., is the presiding president.

Use of Psychotherapeutic and Psychopharmacologic Agents.—The Psychopharmacology Service Center of the NIMH has issued two reference lists entitled Use of Psychotherapeutic Agents with Elderly Patients, and Use of Psychopharmacologic Agents with Children, containing 91 reference studies and 134 studies respectively. Each list is composed of studies which include elderly patients or children, even though those papers may not be directly concerned with these groups.

Each reference is followed by a brief annotation which emphasizes the information especially relevant, in the first list, to the aged, and in the second list, to children, although such emphasis may not be found in the paper.

Connecticut Postgraduate Seminar in Psychiatry and Neurology.—The twelfth Connecticut Postgraduate Seminar will extend from September 18, 1958, through April 15, 1959. There are no fees.

Courses from September 22 through December 1, (Monday and Wednesday) from 3 : 30 to 9 : 00, at the Yale University School of Medicine, 333 Cedar Street, New Haven : clinical neurology, neuroroentgenology, electroencephalography, neuroanatomy, neurophysiology, and neuropathology

On December 1 and 8 (Monday) from 4 : 00 to 9 : 00 p.m. at Yale University School of Medicine : sessions in pediatric neurology.

Courses from January 6 through March 16, (Monday) from 2 : 00 to 6 : 00 p.m., at the Connecticut State Hospital, Middletown : general psychiatry, therapy, psychosomatic medicine, geriatrics, and psychiatry and law.

Sessions from February 11 through March 18, (Wednesday) from 6 : 30 to 9 : 45 p.m., also at Yale University School of Medicine : child psychiatry.

There will be 4 special seminar projects from 10 : 00 to 4 : 00 p.m. Subjects are

listed in the program, copies of which may be obtained from the Office of the Assistant Dean of Postgraduate Medical Education, Yale University School of Medicine, 333 Cedar Street, New Haven, Conn.

American Council of Learned Societies.—On April 14, 1958, the ACLS announced a grant of $500,000 from the Ford Foundation for a program to encourage international scholarly congresses in the humanities and social sciences to meet in the United States. The program is designed to cover a period of from 5 to 10 years. It will be administered by the ACLS in cooperation with the Social Science Research Council.

Selections under the grant will be restricted to broadly significant conferences which have the official sponsorship of a constituent society of the ACLS or the SSRC.

For information address American Council of Learned Societies, 2101 R Street, N. W., Washington 8, D. C.

Society for Psychosomatic Research.—The Society held a conference on The Nature of Stress Disorders at the Royal College of Physicians, London, Eng., May 2-4, 1958. This was the first event of its kind to be held there.

The proceedings of the conference will be published in book form.

For information write to Dr. Desmond O'Neill, 130 Harley St., London, W. 1., Eng.

Illinois Psychiatric Society.—In May the following members of the Illinois Psychiatric Society were elected to office for the year 1958-59 : President : Dr. Nathaniel S. Apter, Chicago, Ill. ; President-elect : Dr. Frances Hannett, Chicago, Ill. ; Secretary-treasurer : Dr. Paul Nielsen, Chicago, Ill. ; Councilors : Dr. Kalman Gyarfas, Chicago, Ill., Dr. Lester H. Rudy, Galesburg, Ill. Delegate to Assembly of District Branches, APA, serving 2nd year of term : Dr. John R. Adams, Chicago, Ill. Alternate delegate : Dr. Isadore Spinka, Chicago, Ill.

Dr. Jacob Klaesi Celebrates 75th Birthday.—We are pleased to report that our eminent Swiss colleague, Dr. Jakob Klaesi, emeritus professor of psychiatry at the University of Berne, celebrated his seventy-fifth birthday on May 29, 1958. His Alma Mater, the University of Kiel (Germany) presented to him, in honor of this occasion, the precious gift of Doctor Medicinae Honoris Causa. In the September 1953 issue of this Journal we noted the honor paid to Professor Klaesi at his seventieth birthday in the form of a festschrift, a special 500 page issue of the *Monatsschrift für Psychiatrie und Neurologie*, May-June of that year, accompanied by a photograph of Professor Klaesi.

Association for the Advancement of Psychoanalysis, Inc.—On Wednesday, September 24, 1958, the Association for the Advancement of Psychoanalysis will sponsor its regular meeting at the New York Academy of Medicine at 8 : 30 p.m.

The program will be : "Existentialism and Psychoanalysis", reports from the 4th International Congress of Psychotherapy in Barcelona.

Speakers : Dr. Benjamin J. Becker, Dr. Charles Hulbeck, Dr. Harold Kelman, Dr. Frederick A. Weiss, and Dr. Antonia Wenkart.

American Neurological Association.—At the 83rd annual meeting of The American Neurological Association held in Atlantic City, N. J., on June 16-18, 1958, the following officers were elected for the coming year : president, Bernard J. Alpers, Philadelphia, Pa. ; president-elect, Derek Denny-Brown, Boston, Mass. ; 1st vice-president, Paul I. Yakovlev, Boston, Mass. ; 2nd vice-president, Margaret A. Kennard, Ft. Steilacoom, Wash. ; secretary-treasurer, Charles Rupp, Philadelphia, Pa. ; assistant secretary, William F. Caveness, New York, N. Y. ; editor of transactions, Charles Rupp, Philadelphia, Pa.

The 84th meeting of the Association will be held at the Claridge Hotel, Atlantic City, N. J., June 15-17, 1959.

BOOK REVIEWS

PSYCHOBIOLOGY : A SCIENCE OF MAN. By *Adolf Meyer, M. D.* Compiled and edited by *Eunice E. Winters* and *Anna Mae Bowers.* (Springfield, Ill. : Charles C Thomas, 1957, pp. 246. $6.50.)

Just 25 years after Adolf Meyer gave the first Salmon Memorial Lectures at the New York Academy of Medicine, his long-time co-workers, Eunice E. Winters and Anna Mae Bowers, have succeeded in putting together from voluminous material a readable and essentially authentic presentation in content and form of those three lectures.

There are several points of interest about this event. In the first place, one might inquire why publication was delayed so long. There is only one good answer to this, namely that Dr. Adolf Meyer never reached a degree of contentment with his verbal presentation of the material at the lectures, and worked and reworked for publication, but never succeded in getting it into the form he wanted it, became engrossed in other things, and finally was stricken before the task was accomplished. He left a number of versions in his note-book, and out of these the compilers have succeeded eminently in a presentation which is true to the intent of the lectures and to his own phraseology. The amount of work that has gone into the editing of the material has been stupendous, but I believe the results will have justified it.

Concerning the material itself, there are three parts : on psychobiology, on pathology, and on therapy. These three lectures are to be judged from two standpoints : their historical value and their present usefulness. As far as the historical value is concerned, it can be stated that here is to be found in a compact volume the basic teachings of the one man who most influenced psychiatric teaching and thinking in America. Here are to be seen vividly presented his burning desire to establish psychiatry as a vital element in human biology, free of those dogmatic ways of looking at human behavior from the standpoint of causality and mechanism which had plagued psychiatry before his time, and did in his day.

Also is to be seen his urgent plea for a way of looking at human behavior in its normal and pathological aspects which would gain for it the widest possible acceptance in that consensus which he termed "common sense," and which saw treatment of abnormality as an enlargement of the areas of the normal to be found even in the most abnormal conditions.

The first chapter on psychobiology is a gem of historical accounting of the development of modern psychiatry with its ancient roots in mythology, religion, and philosophy. If for no other reason, the book is worth the money for this one thing.

When we consider the question of the value of these three lectures for current psychiatric thought and practice, we know two things : the views expressed in these lectures have become to a large extent so firmly entrenched in American psychiatric thinking as to present no challenge today. It might be more honest to say that everyone at least gives lip service to these ideas ; some may go further, actually understand and work by them. Those who look for detailed instructions in regard to the conduct of psychotherapy will be greatly disappointed in these lectures. There are two reasons for this. The detailed conduct of psychotherapy has advanced very considerably in these last 25 years and there are rules of procedure now available which were not known then. But I am inclined to believe that even if they had been known, Adolf Meyer would have written the same material, for his main concern was to establish fundamental principles and he believed that once the fundamental principles were established, the physician would find his own best method for conducting psychotherapy. The two principles which I gleaned out of the third chapter of most value are : 1. the effort to establish jointly a degree of plausibility of understanding of the present as a developmental product from the past ; and 2. the conscious effort to sway the performance in the direction of enlargement of a residual normal behavior at the expense of the abnormal. The thorough application of these two principles will, I believe, accomplish in fact what he himself set out to do, namely, to establish a simple method of treatment devoid of dogmatic rules which would be widely applicable at the hands of the greatest number of physicians.

The authors have provided a glossary of terms used by Meyer, some of which are rarely found in current literature, and short biographical sketches of a number of people mentioned in the text.

Altogether, this is a most useful addition to the Salmon lecture series, and it is only to be regretted that it was not published 25 years

ago. It would be hard to imagine a better editorial job than the one the compilers have here accomplished.

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SCHIZOPHRENIA—SOMATIC ASPECTS. Edited by *Derek Richter* (New York: The Macmillan Company, 1957.)

This volume was probably published before the Congress in Zurich and meant to present one of its ouvertures. As regards results this collection of essays which owe their existence to discussions is no more encouraging than the harvest of the Congress. Rees-London gives a nice review of "Physical characteristics of the schizophrenic patient." In "Interaction of genetic and environmental factors in the causation of schizophrenia" Roth-New Castle makes a special point of the social isolation of paraphrenics and its possible significance for the causation and prevention of schizophrenia. Hill-London discusses the "Electroencephalogram in schizophrenia"; one of his essential conclusions is that the EEG does not give evidence of a schizophrenic organic process. The editor's "Biochemical aspects of schizophrenia," about which he read a paper, in Zurich leads to a conclusion (among others) which is scarcely vouchsafed biochemically, *i.e.* the assumption of a hereditary set and a set of "one or more of a number of unspecific exogenous excitant factors coming from the environment." (It is difficult to imagine where "exogenous" factors might come from if not from the environment.) Richter does, of course, not claim priority for this concept nor for the concept of "impairment of the homeostatic control mechanisms situated in the hypothalamus." One cannot help but think of Carl Gustav Jung's notion of localizing his archetypes in the hypothalamus in his Zurich address. Sands-Epsom reviews "Endocrine changes in schizophrenia," which is a daring enterprise so short a time after the publication of Manfred Bleuler's book; Sands was particularly interested in ketosteroid secretion. David-Cardiff's review "The pathological anatomy of the schizophrenias" seems to overlook the fact that leading pathologists consider some of his material as definitely antiquated. Sherwood-London and Colchester goes after "Consciousness, adaptive behavior and schizophrenia." He appears to assume a disturbance of "consciousness or awareness" in the schizophrenic; the first sentence of his contribution reads: "Anybody can recognize lunacy." Rey-London tries to find correlations in "Metabolism in recurrent schizophrenia." Stafford-Clark writes on "Drug action in relation to schizophrenia"; one is grateful to him as he recalls the great "conondrum, 'which came first, the chicken or the egg?'" and states that "the chain of events must always proceed from constitutional and biochemical reactions to stress, towards the ultimate release of personal psychopathology of a characteristic type." Our English colleagues have given us here a token of their undying interest and work in common problems; unfortunately it was not granted to them to succeed in the solution of any of them.

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FREUD AND CONTEMPORARY CULTURE. Edited by *Iago Galdston*. (New York: International Universities Press, 1957, pp. 99. $3.00.)

The five essays contained in this volume were delivered at the New York Academy of Medicine in commemoration of the centenary of Freud's birth. The first of the essays is by Kenneth E. Appel on "Freud and Psychiatry." It is written with Dr. Appel's usual combination of charm and learning, and constitutes an unusually helpful exposition of the psychiatric continuum which Freud so brilliantly revolutionized. Roy Grinker's "Freud and Medicine" is admirable. With sharply focused clarity Grinker states precisely what Freud's contribution has been to medicine, and makes his criticisms of that contribution as sharply and clearly. Grinker does not believe that the best interests of any great innovator's work are properly served by turning it into a scripture. For the immediate future our task should be the relation of psychodynamics to physiodynamics. Paul V. Lemkau on "Freud and Prophylaxis" gives an orderly exposition of Freud's contribution to some basic tenets in prophylaxis in the study of the mentally ill, and we perceive once more what a genuinely fundamental advance that contribution made. "Freud in the Perspective of Medical History" by Gregory Zilboorg is a thoughtful and stimulating piece, as is Clyde Kluckhohn's "The Impact of Freud on Anthropology." Iago Galdston's "Freud's Influence in Contemporary Culture" is rather gracelessly overladen with words, the main effect of which is to obscure the fact that there are some good ideas in this essay and that it is worth persisting in, in spite of the fact that its author does his best to miss the boat. There is an index.

Altogether this is a most attractive little volume and Dr. Galdston is to be congratulated upon his organization of the lectures, though it should be said that the volume would have benefited by a brief biographical account of the great man in whose honor it is published.

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Princeton, N. J.

MENTAL HEALTH RESOURCES IN NEW YORK CITY. Prepared by the Staff of the New York City Community Mental Health Board; Paul V. Lemkau, M. D., Director of Mental Health Services. (New York, 1957. pp. 146.)

Mental Health Resources in New York City is presented as the first report of a continuous survey which aims to learn the extent of mental health services and define ways of judging the effectiveness of these activities. It offers an excellent description of the complexities of organizing an urban mental health program and would be of value to anyone responsible for or interested in coordinat-

ing public and voluntary mental health services in an area.

In summarizing some of the studies made in New York City there are reports of services to children, fee-charging practices, inpatient psychiatric services in general hospitals, duplication of efforts of patient transfer, roles of clinic personnel, relative programs of voluntary and public agencies, magnitude of court problems, needs within public assistance programs, all of which are of broad concern to psychiatric clinic staffs and boards as well as those responsible for community planning. Those who have responsibility for determining priorities in granting funds will follow with interest the effort to establish a rating chart for objective evaluation of services.

Two statements made in this report are particularly worthy of quotation—"The Consultants' Report made a distinction between specifically focused mental health activities (those set up to deal primarily with emotional disorders), and activities that contribute more broadly to social and personal well-being," and "In practice, some limits have to be made to prevent all health and social services from being identified and, indeed, identifying themselves, as mental health agencies." Herein lie many of the questions community mental health personnel and boards are asking.

MABEL ROSS, M. D.,
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THE PHYSICIAN-WRITER'S BOOK. By *Richard M. Hewitt.* (Philadelphia: W. B. Saunders, 1957, pp. 338. $5.00.)

Dr. Hewitt must be known to many medical writers for his work in the Section of Publications of the Mayo Clinic. Out of his years of experience there and on the staff of the J.A.M.A. under Dr. Morris Fishbein, he has produced what is probably the most complete book of medical writing now available. Almost anybody could find something new and interesting in its pages, for Dr. Hewitt has gone into a lot of detail in discussing what he calls the tricks of the trade. The avowed aim of the book is to aid the inexperienced, occasional physician writer, but the book goes far beyond that. A full-time medical editor could also learn things from it and derive food for thought.

Dr. Hewitt goes on the excellent principle that an article should be intelligible to an inexperienced man in an isolated place, "possessed not of a colloquial but of an academic knowledge of English," and then tells the writer in detail how to construct such an article. He is quite prepared to discuss academic questions of style or spelling, as for example when he presents the arguments for the termination "-trophin" as against "-tropin"; and yet he maintains the practical touch, as in his advice to authors to keep two copies of their manuscript, the second being for use "when you lose the first one as, very likely, you will."

The section on illustrations is excellent (how nice to have someone explain the difference between enlargement of a photomicrograph and its magnification) and there is a good chapter on the ethics of writing.

It is a sad reflection on the modern high school that he finds it necessary, in a most helpful list of misused words, to include items on the vulgar misuse of "when" and "where." This example is cited to show the thoroughness with which Dr. Hewitt has done his work.

Finally, the reviewer would add that he has no intention of being parted from his copy of "Hewitt," until, of course, the next edition appears.

S. S. B. GILDER, M. D.,
Toronto, Can.

GUIDE TO MEDICAL WRITING. By *Henry A. Davidson.* (New York: The Ronald Press Co., 1957, pp. 415.)

Even in a technocracy there is no particular virtue or advantage in illiteracy. Yet it would seem that many members of the learned professions nowadays have forgotten how to communicate clearly and elegantly with their fellows—if they ever knew. A few are not conscience of this defect, but there are many more who would welcome the opportunity to learn something of the art of communication by the written word. With the advent of several good books on medical writing in recent years, there is no excuse for remaining a medical illiterate. Dr. Davidson's book is best suited to the man who wants to begin at the beginning, and wants an easily read book to teach him the rudiments of medical authorship. It is written in bright conversational style and takes very little (beyond a basic knowledge of English) for granted.

The author calls it a "practical manual," and practical is the operative word. No time is wasted on arguments about the virtue of one abbreviation over another, or the reasons for alternative spellings, and the approach is therefore the dogmatic one of the undergraduate text. For this reason, it will particularly commend itself to the occasional writer, who will find it a reliable guide through the maze of practical problems connected with the production of the medical paper. Dr. Davidson deals not only with the original article, but also with abstracts, book reviews and meeting reports, and even editorials. He has a number of useful reference lists. For instance, he lists a number of eponyms with their preferred non-eponymic equivalents; he also lists proprietary and generic names, and metric and other equivalents. He even adds a list of journals suitable for submission of certain types of article, though this could do with expansion and further subdivisions. For example, it is doubtful whether the *Chronicle of the World Health Organization* (a periodical primarily concerned with public health workers) and a *British Medical Bulletin* (which tends to publish reviews of sometimes rather difficult topics in basic science) should be in the same category as *British Medical Journal* and *Lancet,* (which cover the whole of British medicine) and *Practitioner* (which is definitely a teaching organ for the general practitioner).

Finally, it would be a mistake to give the impression that only the novice in medical writing can learn from this guide; many physicians with a

number of publications to their credit commit some of the sins Dr. Davidson points out. But perhaps they don't care!

S. S. B. GILDER, M. D.,
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PRINCIPLES OF PSYCHOANALYSIS. By *Herman Nunberg*. (New York: Int. Universities Press, 1955.)

No reviewer can hope to achieve the high level of the opinion of Nunberg's book contained in the foreword by Sigmund Freud—"In this book Nunberg gives the most complete and accurate presentation we have at this time of a psychoanalytic theory of neurotic processes. Those who seek a simplification and a glossing over of the problems of which it deals will be disappointed in this book. Those, however, who prefer scientific thinking, who appreciate theoretical formulations which never abandon their ties to experience, those who can savor the rich diversity of psychic events—those persons will value and eagerly study this work." In large measure *Principles of Psychoanalysis* merits Freud's evaluation.

Nunberg's opening gambit in his presentation, the case summary of a young girl with severe vomiting with an amnesia for a sexual experience with an elderly man is strikingly similar to the Anna O. of Freud, his point of departure for his explorations of the unconscious. This case provides Nunberg with an opening for one of the valuable aspects of his introductory remarks, simplicity. Too often in a book of theoretical formulations does the author neglect to repeat, perhaps well known but basic observations which provide the background for more complex discussion. For instance, "it is noteworthy that the experience which had a strong emotional tone and which was intensely unpleasant to the patient, was for the moment forgotten, but a symptom—vomiting—took its place. The *symptom* is *thus a substitute* for an *important experience which has become unconscious*. There is a gap in memory at the point where something important has happened in the patient's life. We meet with similar gaps in memory in every neurotic patient. They are called *amnesias* and extend deep into earliest childhood." Thus simply and briefly but clearly there is stated an important fact of the psychopathology of the psychoneuroses.

This book presents a rich display of clinical material. The case documents are given clearly and concisely and then each one is hypothetically discussed. The promise of Freud that the book will be of service to those "who appreciate formulations which never abandon their *ties* to *experience*" is amply validated.

The body of the book consists of 12 chapters: I. The Unconscious in the Neurosis. II. The Dream. III. The Topographic and Dynamic Conception of the Neurosis. IV. The Instinctual Life of the Neurotic. V. The Psychology of the Ego. VI. The Actual Neuroses. VII. Anxiety. VIII. The Processes of Defense. IX. The Process of Illness. X. Character and Neurosis. XI. The Causation of Neurosis. XII. Theoretical Principles of Psychoanalytic Therapy. In addition there is an excellent 9-page bibliography and a serviceable 10-page index.

The book progresses smoothly from the presentation of well-known and generally accepted psychoanalytic concepts to theoretical discussion. The Freudian line is followed. The reviewer understands reasonably well and utilizes many Freudian concepts but is not a trained analyst. He feels that in the psychology of orthodox analysis there is a tendency to present hypothesis as proven fact somewhat too readily. Perhaps this appears occasionally in this book. For instance, in the discussions of birth anxiety, these statements are made: "Anxiety is as has been shown above, the archaic precipitate of an important traumatic experience. . . . It is not necessary to present proof that the process of birth itself can have a traumatic effect." Birth anxiety, its derivation, objective manifestations, etc. are still moot. However, it is better to be fairly positive about a theory than too timid, but there is a compromise which should be followed.

The reviewer stated that Nunberg's book followed the Freudian line. But Freud was most flexible and left many questions open to future thought and investigation. Freudian psychology is not static although some analysts tend to try to keep it so. Nunberg does not. Perhaps this is nicely illustrated in the chapter on Dreams. In my library I have a prized paper-bound book by Smith Ely Jeliffe published in 1920. It has this to say about dream symbolisms: "The male organ is frequently symbolized as something long and thin —a dagger, umbrella, stick, cane, tree trunk, pillar, barrel, revolver, arrow, asparagus, banana, pear, corncobs, reptiles, fish, snakes, etc., etc. . . . the female genitals as muff, bag, box, chest, purse, pocket, chair, bed, hole, cave, church, crack, center of a target, windows, doors, small rooms, cellar. The figure 2 is a frequent female symbolization. . . . Castration and masturbatory fantasies (fellatio and cunnilingus) are frequently associated with losing a tooth. . . . Potency and impotency symbols are frequently represented by flying machines, zeppelins, balloons, trees standing or falling pillars (Sampson). Flying is a frequent erection wish. Losing trains or buses or things, these are frequent impotency symbols. Birth symbolisms center about water; going in or coming out: saving people, animals, objects from the water. Death wishes are represented by reduction of the libido, going into the dark, going away, on journeys on the railroad, boats, etc."

In effect it is a kind of Napoleonic dream book. Nunberg's intelligent discussion of dreams shows how much progress has been made in their interpretation and how the associations of the dreamer have become increasingly weighted in attempting to unravel the workings of the unconscious during sleep.

In the opinion of the reviewer, the best chapter in the book is Chapter XII—"Theoretical Principles of Psychoanalytic Therapy." Perhaps this opinion is influenced by his belief that the chapter will be of considerable help to therapists in general psychotherapy. There is a general psychotherapy

which sometimes is quite useful. It is erroneously called "support" therapy. "Support" therapy conveys the impression that the therapist stands around handing out psychological crutches to the patient and uttering pollyanna bromides. Sound general psychotherapy takes its point of departure from psychoanalysis. It recognizes and realizes full well that nothing constructive can be done for the patient unless there is a reasonable understanding of the nature of the hidden conflict. General psychotherapy does become more active in using with due caution such measures as reassurance, occupational therapy, counselling, attempting to supply unsatisfied emotional needs dated in childhood, etc. However, it attempts to keep these steps within the framework of the unconscious conflicts. It is suggested by Nunberg, although not directly stated, that sound general psychotherapy is not too remote from analysis and when rightly used serves the needs of the many patients who for one reason or another are not available for psychoanalysis.

It is good to note in the discussion on page 359—"Changes brought about through Psychoanalysis"—that Nunberg recognizes the secondary importance of removal of the symptoms. Of far greater significance is the personality change that is wrought, the strengthening of the ego, the capacity and willingness to carry on life on an adult rather than a child emotional level, due consideration of the rightful claims of the environment: "the ego whose energy is no longer absorbed by the defensive struggle becomes more and more adequate to its most important work, the *task of reality testing*. It learns better to distinguish between external and internal stimulus. It learns to master such instinctual demands as entail external danger and to direct them to other goals (sublimation), or else it learns to keep instinctual demands in suspension until a moment arrives propitious for their fulfillment. With this mastery of instincts, the analyzed person learns also to endure pain. He has become able to procure gratification for ego-sytonic instincts through suitable changes in the external world. He is now more concerned with the objects of the outer world and becomes more social."

All in all *Principles of Psychoanalysis* justifies Freud's verdict—"the most complete and accurate presentation we have at this time of a psychoanalytic theory of neurotic processes."

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THE ROAD TO INNER FREEDOM. By *Baruch Spinoza*. Edited by *Dagobert D. Runes*. (New York: Philosophical Library, 1957, pp. 209, $3.00.)

This little book is neither easy to read nor to understand despite the editor's efforts in that direction. The considerable patience and thought necessary to digest it are only increased by the difficult sentence structure. Likewise, each idea is stated separately as a mathematical equation leading to logical conclusions and there is little explanatory discussion of the goal toward which the thesis is directed. This makes the first reading most difficult; one must reread and closely study this material in order to comprehend Spinoza's philosophy. Those interested in such matters will be rewarded by a simple but beautiful philosophy of life developed by an ailing Portuguese Jew who had fled religious persecution at the end of the 15th century. We may not agree with his definitions of words or emotional states; however, these were set forth before much of our fund of knowledge was available. Although he recognizes that "the names of emotions have been applied in accordance with their ordinary manifestations rather than an accurate knowledge of their nature," he only undertakes such functional definitions stating "there is no need to take cognizance of differences (in emotions) nor to track out further the nature and origin of the differences as those between love felt toward children and love felt toward a wife." This latter task was left for another age and psychology—not Spinoza and philosophy.

It can be readily understood that Spinoza was excommunicated when we read that "God," "Nature," and "substance" are one, acting by the simple facts of existing and obeying laws of physics without any purpose or end. "The doctrine that God's (Nature's) judgements far transcended human understanding sufficed to conceal truth from the human race until mathematics furnished another standard of verity without regard for final causes." "Final causes are only human figments." Or that a thing is good and useful only insofar as it is in harmony with Nature and only bad to the degree that it is contrary. Were it not for our faulty judgements as to what is in harmony with Nature, everyone would be striving toward the same goal of perfection and no discord would arise. Such thoughts have caused many great minds to meditate and will be the reward of those studying this short treatise.

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THE IMPORTANCE OF OVERWEIGHT. By *Hilde Bruch*. (New York: W. W. Norton & Company, Inc. 1957. Pp. 438, $5.95.)

In this day of research by crash projects and yearly grants there are few investigators who have devoted a lifetime to one problem and fewer still who have developed the affection for their subject which comes with long devotion. When such an investigator decides to sum up the results of such labor, and when she writes with the clarity and wit of Hilde Bruch, the result is apt to be as entertaining as it is instructive. This book is both.

The virtues of long association with her subject are most notable when Bruch is dealing with historical matters, with the vagaries of our predecessors' thinking about obesity and with the paths they took into their particular blind alleys. Not until I read the chapter on "Confusion about Obesity," for example, had I ever really understood how obesity came to be viewed as an endocrine disease, a view which has been held with an intensity of conviction that must surely have been in inverse proportion to the evidence supporting it. The chapter on "Basic Facts on Basal Metabolism" offers a convincing argument that this is "a wrong method for the

study of obesity, used on wrong subjects, and impossible to interpret meaningfully."

The fact that such topics are discussed in an authoritative manner by a psychoanalyst is an indication of the scope of this book, or perhaps rather of the learning of its author. She has a sure grasp of different approaches to her topic, and in her 20 odd years' study of obesity she has learned to move easily from biochemistry and genetics to psychoanalysis and clinical psychology. The result has been a catholic approach which avoids both the Scylla of what Whitehorn has called the "psychophilic" as well as the Charybdis of the "psychophobic." Any unitary theory of etiology is eschewed and obesity is viewed not as a disease but as "a symptom with multiple determinants" in which the importance of the psychological determinants varies from person to person.

What theoretical framework has Bruch found most useful in organizing her carefully collected data? In view of its origins in just this type of psychophysiological problems, and of the veritable monopoly which it has exercised in the field of the feeding disorders, the libido theory might appear the logical choice. It is therefore of interest that Bruch makes no use of it; in the entire book the word "oral" does not appear once. The psychological data are interpreted rather from the point of view of a theory of interpersonal relations, a model conspicuously lacking in physiological parameters. How then is this data integrated? The author's approach is perhaps closest to the transactional viewpoint of Grinker, although she appears to have derived it independently. As Bruch sees it, any approach which ascribes the development of obesity *either* to constitutional *or* to interpersonal influences is oversimplified. "The interplay between a mother and her child must be considered as a reciprocal process. . . . The way a child responds is as important as the maternal attitude; and the child will react according to his innate endowment." And the interaction itself so modifies the participants that "the innate biological tendencies may never be understood clearly."

This book is characterized by awareness of the complexity of the problems with which it deals. Bruch offers few answers; rather, she tells us, she has taken as her motto MacLeish's:

> "We know all the answers, the answers,
> It is the questions we do not know."

At this stage of our understanding it may be a greater service to raise meaningful questions about obesity than to attempt answers to the questions asked thus far. It is apparently by design that each chapter ends not only with a question, but with practically a protocol for further research.

This reviewer has some reservations about one aspect of the book,—the extent to which generalizations can be made from the author's material. Throughout the excellent clinical descriptions I had the uneasy feeling that much of what I was reading applied to others besides obese persons. And if issues are not even specific, how can they possibly be etiologic? Such a methodological problem is perhaps inevitable in a study conducted so largely by one person, and Bruch makes no effort to obscure it. It raises the question, however, of whether psychophysiological investigation may not require more data than can be assimulated by one person.

The emphasis of this review may give the impression that *The Importance of Overweight* is a theoretical study of psychosomatic medicine. This is not the case. It is essentially a clinical book, and its greatest appeal will be to clinicians. For nowhere before has there appeared in one place such a wealth of observations on this topic. Bruch's definition of the recurring themes in the lives of obese persons, and of some of the treatment measures found useful by an experienced therapist will be appreciated by those physicians who are dissatisfied with the results of their treatment in obesity. But the ultimate beneficiary will be the patient. This is timely. For in the nation-wide obsession with weight reduction, obese persons need all the help they can get, if only as protection against the therapeutic enthusiasm of their physicians. *The Importance of Overweight* should provide such help through its effects on physicians and lay public alike. In her "plea for a more serious and respectful approach toward obese persons" Bruch has taken a long stride toward her goal of "an enlightened social climate [in which] fat people will have at least a fighting chance to work out their problems of living in a more constructive way."

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MANAGEMENT OF THE PATIENT WITH HEADACHE. By *Perry S. MacNeal, Bernard J. Alpers* and *W. R. O'Brien.* (Philadelphia: Lea & Febiger, 1957. $3.50.)

That body of knowledge about headache which is useful to family physicians, psychiatrists, internists, and neurologists is presented concisely and definitively in this volume. Beginning with a consideration of physiological and psychological mechanisms underlying head pain, the authors consider the headache of intracranial new growths, meningitis, intracranial and subarachnoid hemorrhage, subdural hematoma and aneurysm. The interrelationships between headache and such systemic diseases as diabetes and hypertension are described. The major part of the book, however, deals with the far more common family of vascular headaches and the head pain linked with increased skeletal muscle contraction.

The psychiatric considerations pertinent to headache have been treated admirably, and skillfully integrated with the anatomic and physiologic material. In addition, the amount of space allotted is appropriate to their critical importance.

This reviewer especially admires the forthrightness with which the authors have expressed themselves on several issues. Examples follow:

"The ophthalmologists assure us also that many headaches are caused by muscle imbalance. If so, such patients must be cured by them and therefore saved from falling into our hands, because in our own group of patients, this has not been so."

"It is our belief that most of the symptoms which are blamed on the menopause are due to the economic, social and family frustrations of middle life rather than to the specific endocrine changes secondary to ovarian atrophy."

The authors also state clearly some things about migraine headache which need to be said. They indicate the failure of histamine desensitization in their clinic after a reasonable trial. They affirm that it is unnecessary to order a detailed workup in patients who have a long history of headaches typical of migraine.

The discussion of pharmacotherapy is equally frank. It is detailed and specific so that one need only consult it to determine the more useful agents, their dosages and the circumstances appropriate to the usage of each.

The reader should recall the specific aim of the authors, *i.e.*, to risk "drawing our lines more sharply than the facts justify." One may dispute their classification of headache, or express a reasonable doubt that there is a single specific unconscious conflict present in all those subject to migraine attacks. These considerations do not detract however from the fundamental soundness and usefulness of the volume.

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INTRODUCTORY CLINICAL PSYCHOLOGY. By *Sol L. Garfield, Ph. D.* (New York: The Macmillan Company, pp. 469, $6.00.)

Although it is presented as an introductory text for college seniors and beginning graduate students, this book must be understood as a communication, a stand on an essentially social issue. The issue is: what is the role of the clinical psychologist in contemporary society? The stand is: the clinical psychologist is concerned with the diagnosis and treatment of emotionally disturbed persons, and his activities along these lines will inevitably expand in spite of the obstruction of organized medical and psychiatric groups. The author is qualified to speak on these matters. He is the chief of a psychology training unit in a university-connected VA hospital; before that he was in "full-time clinical work," and before that, in university teaching.

This communication is 457 pages in length, exclusive of indices, and includes 155 pages devoted to testing *per se*. Psychological testing is presented as part of the process of diagnostic appraisal with considerable emphasis upon the general clinical skills and behavioral observations of the psychologist. Psychotherapy ranks second in space allotment with 97 pages. The presentation of this subject tends to be academic with a bit of a review-of-literature flavor. Although the author refers to some of his own cases, they suffer from his need to present general principles and lack of the breath of life. Psychoanalysis comes in for dutiful summarizing as do other sectors of the field, including the learning theory viewpoint. Perhaps most significant, from the standpoint of communication, is the fact that the reader is never allowed to forget that psychotherapy is a function of clinical psychologists. Repeated mention of the divisions of the American Psychological Association, and of the psychotherapeutic or counselling activities of the members of these divisions adds a certain trade union quality to the discussion at times. Also significant is the attention devoted to the purely professional problems of clinical psychology as a young field. These are taken up in the introductory and final sections which together comprise 63 pages. Here we find such items of interest to college seniors as, "the payment of fees to psychologists has been recognized as a legitimate expense for medical treatment, broadly defined, and can be deducted for income tax purposes." There is also a discussion of the advantages of legal status (licensure or certification) for psychologists, and a passionate denial of the concept of psychotherapy as a form of medical treatment, as embodied in the joint 1954 resolution of the American Medical Association, The American Psychiatric Association, and the American Psychoanalytic Association (reproduced in part in the text). This use of an introductory college textbook as a vehicle for partisan opinion is unique in the experience of this reviewer. The other sections, in the order of space allotment, are concerned with clinical research, 40 pages; diagnostic appraisals in various clinical settings, 33 pages; settings in which the clinical psychologist works (hospitals, schools, private practice, etc.), 30 pages; interview and case study methods, 18 pages; general diagnostic and theoretical considerations, 13 pages.

From an objective point of view this volume may admirably fulfill the purpose for which it was intended. It is well written, with competent and interesting discussions of psychological diagnosis and therapy, and of the professional activities of clinical psychologists. It is one which might well persuade the interested college student to embark upon a career in clinical psychology, rather than to attempt the more arduous task of training first in medicine and then in psychiatry.

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IN MEMORIAM

MERRILL MOORE, M. D., 1903-1957

On September 20, 1957, Dr. Merrill Moore died in the 55th year of his life from a rapidly metastasizing carcinoma after being ill for barely two months.

Although physically reduced to a shadow of his former powerful frame, he remained entirely unchanged in his personality: his kind concern for others, his interests, his activities, his constructive optimistic outlook in spite of the fact that he knew every detail of the diagnosis and its implications.

Dr. Moore's genius lay in the treatment of young schizophrenics and similar states of adolescent crisis. He took on and succeeded in achieving remarkably full recoveries in apparently hopeless cases. His outstanding persistence was based on a deeply optimistic belief that no situation or challenge no matter how difficult is hopeless. He accepted the most challenging therapeutic problems and never gave up. He believed that new activity is more curative than mere change in feeling and thinking. This belief led him to be one of the first and most effective users of inspired occupational therapy in the psychotherapy of outpatients. This pragmatic belief in activity has been one of the outstanding features of his success with patients who had failed wholly or in part with other methods.

While in most cases he used psychotherapy alone which he applied with infinite patience, depth and ingenuity of understanding, and uncanny capacity for the transmission of the positive life forces which he so abundantly possessed, he nevertheless had the flexibility to use physical forms of treatment when needed. Some of these he applied himself, and for some of them he used consultants with whom he collaborated with a selfless blending of efforts achieved by few in our highly individualistic field.

Another field in which he was highly successful as a therapist and interested in as a research scientist was the treatment of chronic alcoholism. His influence and work as a therapist did not remain limited, however, to any disease, nor even to the large number of patients whom he took on for formal treatment in his office or the many clinics which he attended. The number of people whose lives he importantly influenced for the better by saying the right word, or by doing the right deed at the right time is innumerable. In a way Dr. Moore was a therapist to the world at large. His poetry was a vehicle to extend his therapeutic influence to large unseen audiences. It reflects his outlook as a physician and therapist, giving both insight and inspirational synthesis.

Merrill Moore was born in Columbia, Tennessee, the son of John Trotwood Moore and Mary Daniel Moore. He studied at Vanderbilt University and there came under the stimulating influence of Sidney M. Hirsch, John Crowe Ransom and others, with whom he was associated in the "Fugitive" group of modern poets. Lifelong friendships grew out of these early contacts.

His interest in medicine as an expression of his creative instincts outweighed the esthetic and artistic one, although the latter remained as a strong concurrent interest throughout his life.

After a year's rotating internship he served as intern and resident in neurology under Dr. Stanley Cobb at the Boston City Hospital. In 1932, he entered psychiatric training as a house officer under Dr. C. Macfie Campbell at the Boston Psychopathic Hospital and was subsequently appointed Commonwealth Fellow in psychiatry and Research Fellow in psychiatry at the Harvard Medical School. In this capacity he continued his work with Dr. Campbell, but also undertook research with Dr. Harry C. Solomon and did psychiatric outpatient work at the Massachusetts General Hospital. He also spent a short time of psychiatric study under Dr. Adolf Meyer in Baltimore. Concurrently he underwent analysis with Dr. William

Herman and Dr. Hanns Sachs, with whom he established lasting friendships.

In 1935, he established a private practice in Boston and also served on the staff of Dr. Tracy J. Putnam, the newly appointed professor of neurology at Boston City Hospital, being in charge of the psychiatric services within that department and which the department rendered the remainder of the Boston City Hosptial. It was here that he carried out his important researches on alcoholism and drug addiction and on drug-induced psychoses. He attracted many contemporaries and younger men to the new department at the City Hospital which owes a good deal of its growth in these days of rapidly expanding knowledge in our field to his inspiring and leavening influence on the staff. He was a stimulating teacher at Harvard Medical School and several of the students in whom he took particular interest have since become outstanding contributors to the field of the diseases of the nervous system.

At the beginning of World War II Dr. Moore volunteered for active duty with the United States Army, serving as chief of the section of neuropsychiatry with general and evacuation hospitals in the South Pacific, also as regional consultant, later as surgeon of the Nanking Headquarters Command in Nanking, China. He was awarded the Bronze Star in recognition of meritorious achievement in connection with military operations against the enemy at Bougainville, Solomon Islands, from July 3 to October 31, 1944; and he received the Order of the Cloud and Banner (Yen Hui), personally awarded by Chiang Kai Check for his effective management of sanitation after the liberation of Nanking.

During the post-war years he resumed his very active private practice as well as his teaching and research. In 1954, he shifted the focus of his research from Harvard Medical School to the Department of Human Relations at Harvard University where he was engaged in collaboration with Professor Henry A. Murray in the study of creative processes. Concurrently he continued clinical research.

He is survived by his wife, Ann Leslie Nichol Moore, his sons, Adam Gillespie Nichol, John Trotwood, Leslie, and a daughter, Hester.

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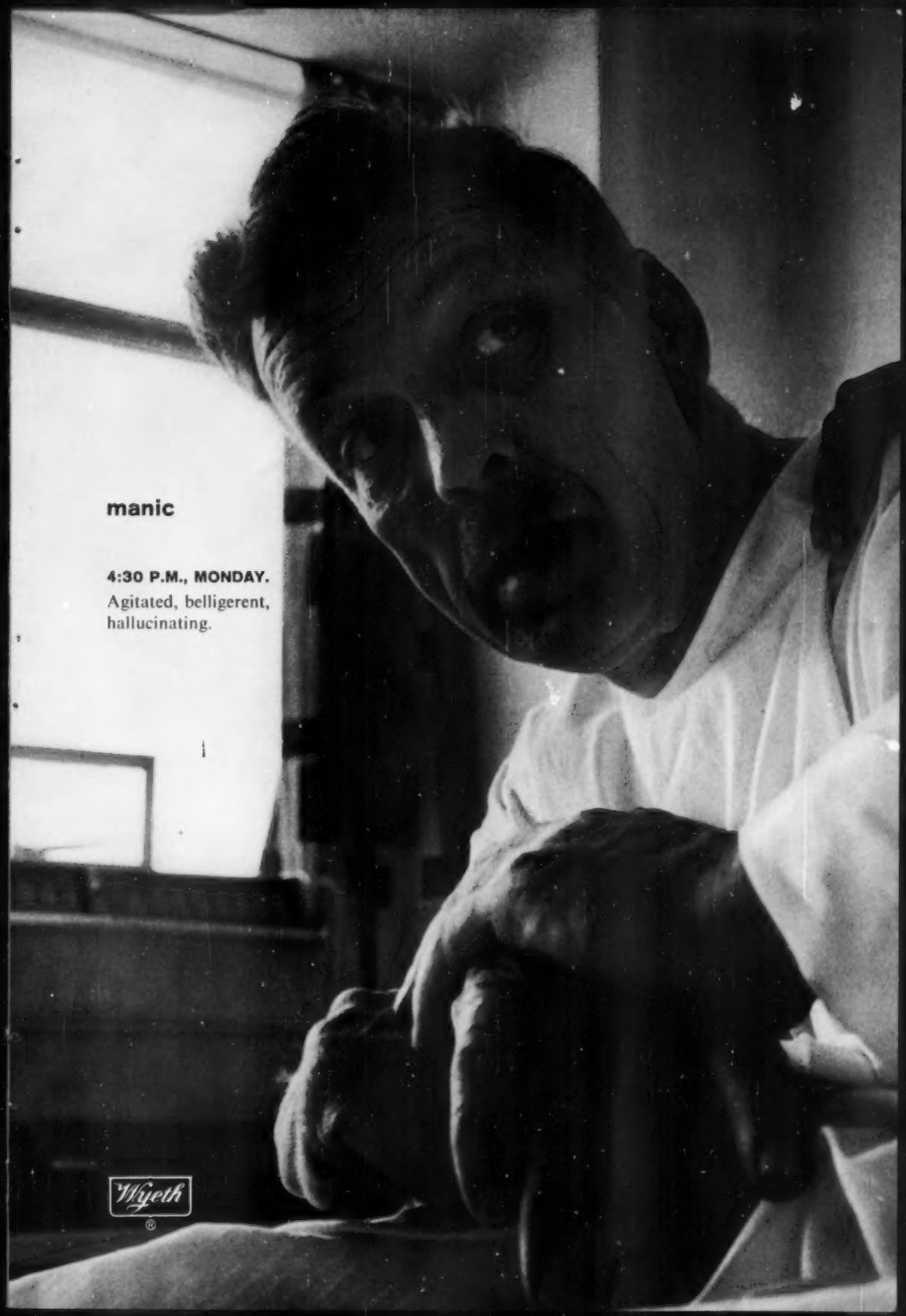
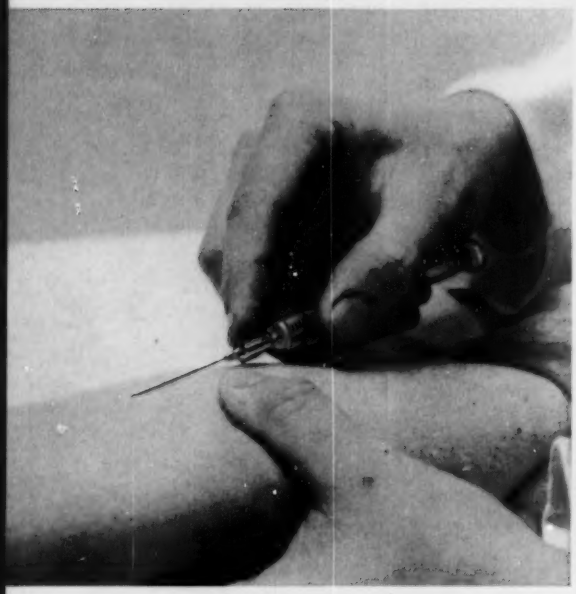
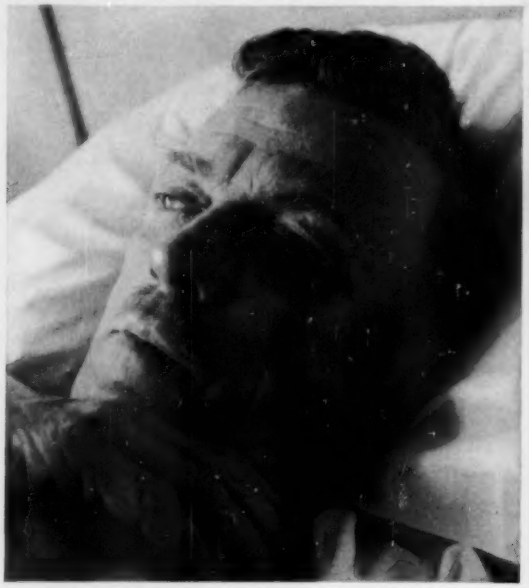
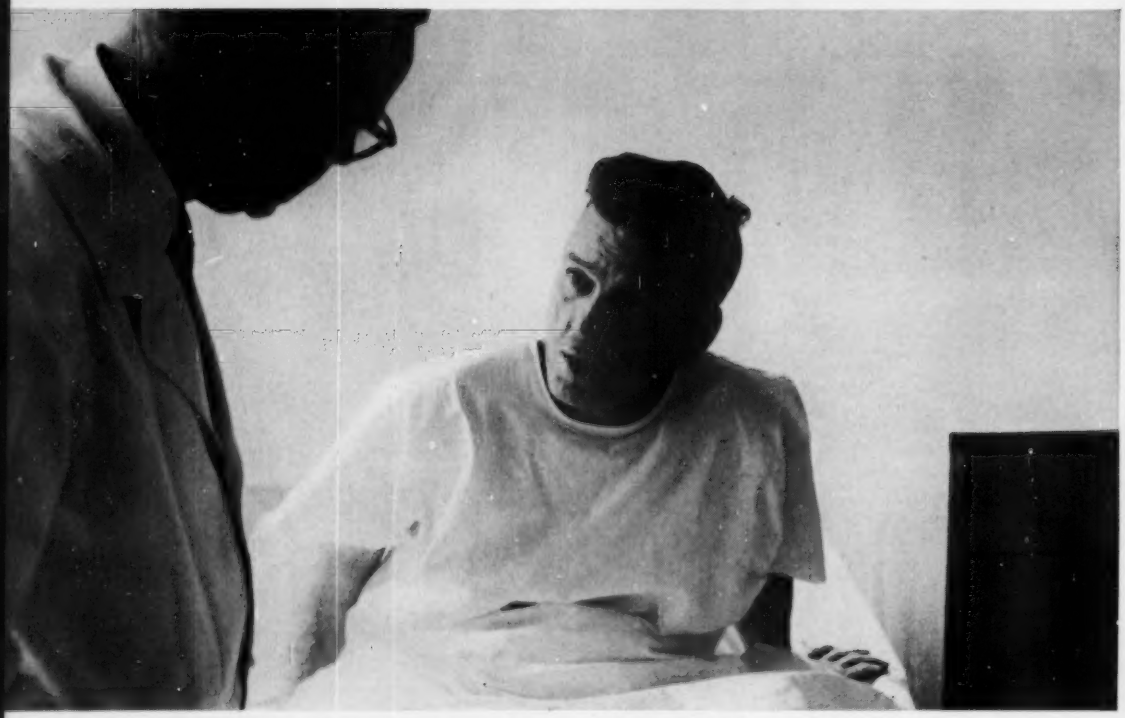

manic
4:30 P.M., MONDAY.
Agitated, belligerent,
hallucinating.
Wyeth

4:40 P.M., MONDAY. SPARINE I.V.

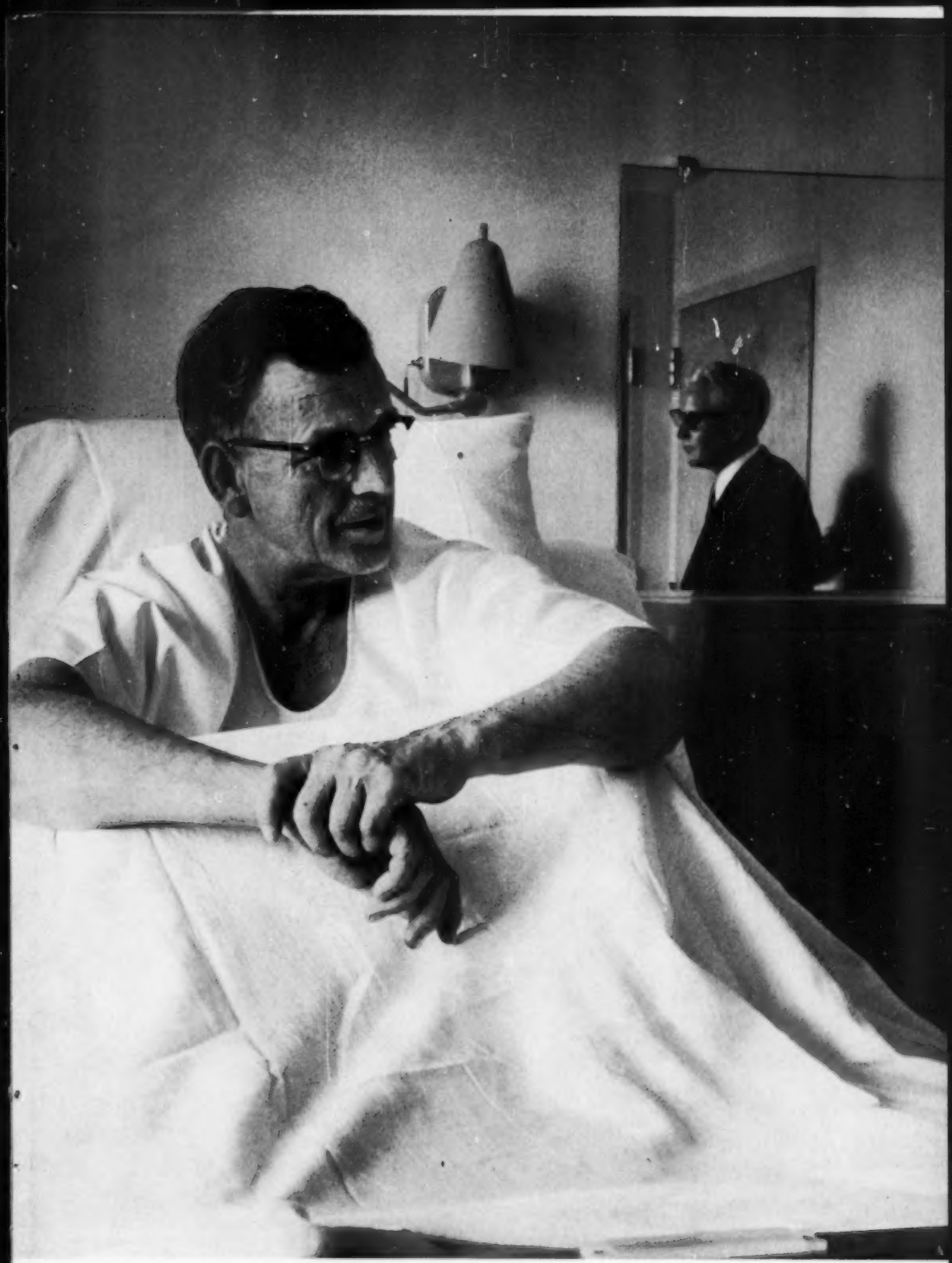


5:00 P.M., MONDAY. Calmer, less hostile. Responds cooperatively to questions.





7:30 A.M., TUESDAY. Refreshed but some agitation remains. SPARINE I.V.



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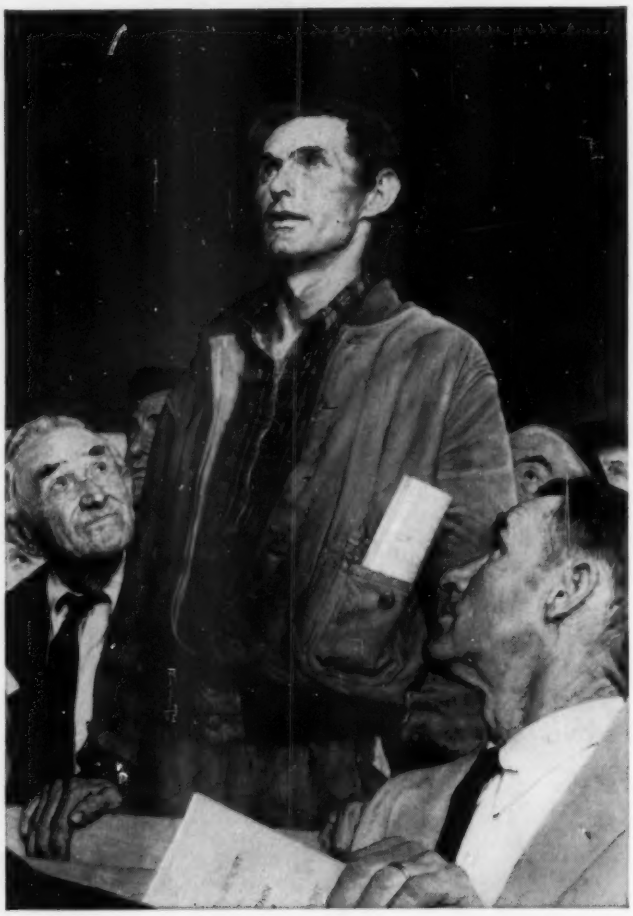

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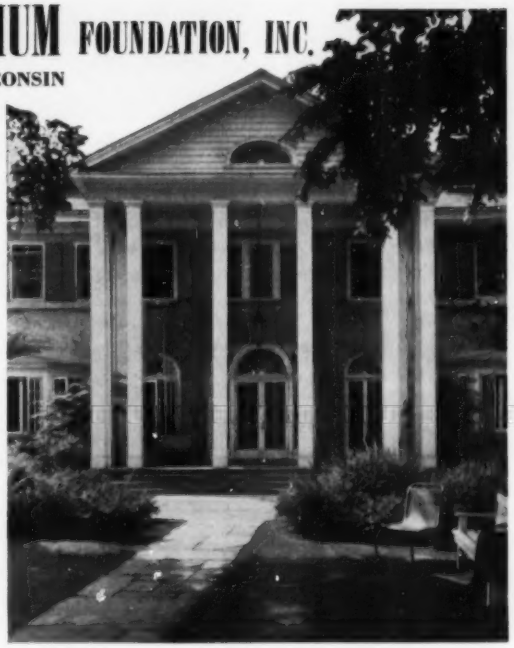

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